

**ACCESS AND UTILIZATION OF HEALTH INFORMATION FOR DISEASE
MANAGEMENT AMONG MOTHERS OF CHILDREN UNDER FIVE: A CASE STUDY
OF KAWAALA HEALTH CENTRE IV, KAMPALA, UGANDA**

BY

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**A DISSERTATION SUBMITTED TO THE DIRECTORATE OF RESEARCH AND
GRADUATE TRAINING IN PARTIAL FULFILLMENT OF THE REQUIREMENT
FOR THE AWARD OF A MASTER OF SCIENCE IN INFORMATION
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DECEMBER, 2025

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I, Harriet Atim, do hereby declare that this is my original piece of work. It has never been presented to Makerere University or any other institution of higher learning for the award of a degree or a diploma.

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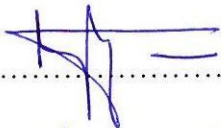
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DEDICATION

This report is dedicated to my family with much love and gratitude.

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ACRONYMS

AIDS:	Acquired Immune Deficiency Syndrome
CBS:	Central Broadcasting Services
CHRB:	Child Health Record Booklet
CSO:	Civil Society Organization
CHW:	Community Health Worker
COVID-19.	Coronavirus Disease 2019
DCC:	Direct Customer Contact
FGD:	Focused Group Discussion
HIV:	Human Immunodeficiency Virus
HMIS:	Health Management Information System
HPE:	Health Promotion and Education
HUMC:	Health Unit Management Committee
HWG:	Health Work Group
HWI:	Vietnam Hand Washing Initiative
ICT:	Information and communication technology
IEC:	Information Education and Communication
IMCI:	Integrated management of childhood illness
IMR:	Infant Mortality Rate
IPC:	Interpersonal Communication
ITN:	Insecticide Treated Net
IYCF:	Infant Young Child Feeding
KCCA:	Kampala Capital City Authority
KHC:	Kawaala Health Centre
MFPED:	Ministry of Finance , Planning & Economic Development
MNCH:	Mother Newborn Child Health
NGO:	Non- Government Organization
NIH:	National Institute of Health
PHC:	Primary Health Care
PH:	Public Health

STD:	Sexually Transmitted Disease
STI:	Sexually Transmitted Infections
UBOS:	Uganda Bureau of Statistics
UDHS:	Uganda Demographic & Health Survey
UNICEF:	United Nations International Children's Emergency Fund
VHT:	Village Health Team
WHO:	World Health Organization

ABSTRACT

Access to and effective utilization of child health information are critical for the prevention and management of common childhood illnesses among children under five years. However, many mothers continue to face challenges in accessing, understanding, and applying this information appropriately. The purpose of this study was to examine access to and utilization of child health information for disease management among mothers of children under five attending Kawaala Health Centre IV in Kampala, Uganda. The aim of the study was to investigate how mothers of under-five children access and utilize child health information in order to recommend strategic interventions that enhance its provision, accessibility, and effective use.

Specifically, the study sought to: (i) examine the sources through which mothers access child health information; (ii) assess how mothers utilize child health information in managing common childhood diseases; (iii) examine the role of health workers and health education programs in disseminating child health information; (iv) identify challenges affecting access to and utilization of child health information; and (v) propose strategies for improving access and utilization of child health information for disease management.

A descriptive case study design was adopted, and data were collected from mothers of under-five children, health workers, and community health actors using interviews, focus group discussions, and document reviews. The findings revealed that mothers accessed child health information through multiple sources, including health workers, health education sessions, Village Health Teams (VHTs), printed materials, peer mothers, family members, local leaders, and digital platforms such as radio, television, WhatsApp, and SMS reminders. Utilization of this information contributed to improved child nutrition and growth monitoring, increased immunization uptake, enhanced hygiene and sanitation practices, home-based care, first aid, and overall child development.

Despite these positive outcomes, the study identified several barriers to effective access and utilization of child health information, including long distances to health facilities, low literacy and health literacy levels, socio-cultural beliefs and practices, economic constraints, weak community engagement, and inadequate communication. Health workers and structured health education programs were found to play a central role in information dissemination through interpersonal communication, participatory education, capacity building, and follow-up support.

The study recommends expanding VHT coverage, strengthening continuous training for health workers and VHTs, increasing the use of mass media and digital platforms, establishing community-based child health information centers, empowering mothers and communities, and strengthening home-based care interventions. Overall, the study concludes that improving child health outcomes requires a multifaceted, community-centered approach that enhances information access, promotes effective utilization, and empowers caregivers to make informed health decisions for their children.

Keywords: Child health information, access, utilization, disease management, mothers, under-five children, Kawaala Health Centre IV, Uganda.

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Background

Child health information is increasingly recognized as a critical determinant of global and national well-being, particularly in ensuring healthy childhood development and empowering women and girls as primary caregivers. Emphasis on women and girls reflects their central role in achieving sustainable development outcomes, especially SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), and SDG 4 (Quality Education). For women to contribute meaningfully to these goals, good child health is essential. While access to quality healthcare services is widely acknowledged as a key factor in improving child health outcomes, access to accurate, timely, and usable child health information is equally important. Adequate access to child health information enables mothers to make informed decisions regarding nutrition, hygiene, immunization, disease prevention, and care-seeking, thereby facilitating improved child survival and development.

Information access refers to the mechanisms and channels through which information is disseminated and the ease with which individuals can obtain and use the information they need (Wilson, 2019). It encompasses the availability of information resources and the ability to retrieve and apply them effectively (Case, 2020). Information utilization, as described by Dervin (2013), involves applying acquired information to solve problems, make decisions, and enhance knowledge. This process is influenced by the relevance, accuracy, clarity, and timeliness of the information, as well as the user's capacity to understand and act on it (Todd, 2019). Research by Dluhos-Sebesto et al. (2021) indicates that women are more likely than men to seek health information and consult a variety of sources, including friends, family members, and alternative health practitioners. Women often seek information not only for themselves but also on behalf of others, particularly children under five. This highlights women's central role as coordinators of family healthcare and underscores the importance of ensuring they have access to comprehensive, reliable child health information.

Access to child health information is a core objective of primary healthcare in many developing countries; however, lack of knowledge and inadequate information dissemination remain significant barriers to good health practices, contributing to preventable health risks (Sokey et al., 2018). Individual access to child health information is widely viewed as a means of minimizing the social and economic impact of both preventable and non-preventable childhood illnesses. Consequently, the search for and utilization of child health information has become a growing concern for both mothers and healthcare providers. One of the most influential factors affecting child health outcomes is the extent to which mothers are informed and able to appropriately utilize relevant health information.

The accessibility of healthcare services such as antenatal and postnatal care, immunization clinics, and pediatric services plays a vital role in the dissemination of child health information (Gage, 2017). Mothers' socioeconomic status significantly influences their access to health resources and educational materials, with low-income mothers often facing compounded barriers (Dixon-Woods et al., 2016). In high-income regions such as the United States and Europe, well-developed health systems, digital infrastructure, and high maternal education levels support access to evidence-based child health information through healthcare providers, telemedicine, electronic medical records, and accredited online platforms (Sarkar et al., 2020). Public health initiatives such as the Bright Futures Guidelines and the European Child Health Strategy promote structured health communication through routine pediatric care and parent education programs (European Commission, 2021). Nonetheless, challenges persist, including misinformation on social media, language barriers, and inequalities affecting migrant and low-income populations (Schnur & Montgomery, 2022), demonstrating that access to reliable child health information remains a global challenge.

Similarly, Asian countries display varied patterns in child health information access due to differences in healthcare systems and socioeconomic conditions. In countries such as Japan, South Korea, and Singapore, mothers benefit from strong community health systems and digital platforms providing maternal and child health information (Yamamoto et al., 2020). Conversely, in lower- and middle-income Asian countries such as India, Bangladesh, and Indonesia, mothers often rely on family networks, community leaders, or traditional healers, which may conflict

with biomedical guidance (Rahman et al., 2019). Limited digital literacy, entrenched gender norms, and inconsistencies in service delivery further restrict effective utilization of child health information, resulting in delayed care-seeking and preventable childhood illnesses.

Globally, initiatives such as the Integrated Management of Childhood Illness (IMCI) by World Health Organization and the Care for Child Development program by UNICEF emphasize timely communication, caregiver engagement, and culturally appropriate messaging (WHO, 2022). Despite these interventions, persistent challenges—such as health literacy gaps, digital inequalities, cultural mistrust, and inconsistent communication by health workers continue to affect how mothers interpret and apply child health information (Aguirre et al., 2021). This global context reinforces the relevance of examining access and utilization of child health information at the local level.

In Sub-Saharan Africa, including Uganda, socioeconomic conditions strongly influence mothers' access to and use of child health information. Poverty, under-resourced healthcare infrastructure, shortages of skilled health workers, and weak health information systems constrain effective dissemination (UNICEF, 2020). Traditional beliefs and practices may also compete with biomedical advice, particularly in communities with low trust in formal healthcare systems. Studies by Waiswa et al. (2015) and Nanyonjo et al. (2017) show that reliance on traditional birth attendants and community elders, combined with gendered decision-making dynamics, affects how child health messages are received and acted upon. In response, countries such as Rwanda, Ethiopia, and Ghana have adopted community-based health promotion models, including village health teams and health extension workers, which have demonstrated improvements in maternal knowledge and health-seeking behaviors.

In Uganda, under-five mortality has declined but remains a public health concern, with preventable diseases continuing to contribute significantly to child deaths (Uganda Demographic and Health Survey, 2022). Mothers access child health information through health workers, media campaigns, and community programs; however, challenges such as low literacy levels, cultural beliefs, socioeconomic constraints, and inadequate communication limit effective utilization (Nanyonga et al., 2021). The Ministry of Health's Village Health Team (VHT)

strategy aims to bridge information gaps by providing community-based health education (Ministry of Health Uganda, 2017). Nevertheless, scholars argue that while relevant child health information exists, the primary challenge lies in ensuring its accessibility, comprehension, and practical application by mothers, particularly those with children under five (Kiracho, 2017).

Kawaala Health Centre IV, established in 1997 under Kampala Capital City Authority, serves a large and diverse urban population, providing comprehensive maternal and child health services, including immunization, growth monitoring, treatment of common childhood illnesses, and health education (UBOS, 2022). While the facility plays a critical role in supporting child health, limited empirical evidence exists on how mothers of children under five access, interpret, and utilize child health information in their daily disease prevention and management practices. This gap justifies the need for the present study.

Finally, childhood morbidity and mortality remain major public health concerns in many low- and middle-income countries, particularly in Sub-Saharan Africa. According to the World Health Organization (2023), children under five face the highest risk of death from preventable and treatable diseases such as malaria, pneumonia, diarrhea, and malnutrition. Timely access to reliable child health information by caregivers especially mothers is critical in reducing this burden through improved disease prevention, early recognition of symptoms, and appropriate health-seeking behavior.

1.2 Problem Statement

The Uganda Development Plan (2020/21–2024/25) emphasizes improving health service delivery and ensuring equitable access to essential health information as a pathway to reducing under-five mortality and achieving Universal Health Coverage (Ministry of Finance, Planning and Economic Development [MFPED], 2021). Enhancing the use of health information by caregivers, particularly mothers, is critical in realizing this vision, as access to accurate and actionable information empowers them to make informed decisions, seek timely care, and adopt effective home-based management of childhood illnesses. Despite these commitments, challenges such as limited resources for child health services, uneven resource distribution, and weak implementation of interventions continue to hinder progress (Ministry of Health [MoH],

2019). Inadequate health support from professional caregivers further affects the provision of health information, particularly for children with special needs such as developmental disabilities (Wallace & Kapiri, 2019; Nanyunja et al., 2022).

Although several studies in Uganda and other low-income countries, such as those by Waiswa et al. (2015) and Nanyonjo et al. (2017), have examined maternal knowledge, care-seeking behaviours, and child health practices, they often focus on specific illnesses or community-based interventions and provide limited evidence on how health facilities communicate and support the use of child health information. This creates a clear research gap, particularly in understanding how mothers access, interpret, and apply child health information within a health facility setting, which remains insufficiently documented in existing literature.

At the facility level, Kawaala Health Centre IV provides free government-supported maternal and child health services, including growth monitoring, immunization, and health education. However, health information dissemination at this facility remains unclear. There is little documentation on the formats used to share child health information, how accessible this information is to mothers, and the extent to which it is utilized in disease management. These gaps make it difficult to determine whether mothers of children under five are adequately informed and empowered to manage childhood illnesses. Therefore, there is a need to investigate the access and utilization of health information for disease management among mothers of children under five at Kawaala Health Centre IV. Findings from this study will provide insights that can inform strategies for improving child health outcomes in Kampala and similar urban settings.

1.3 Aim of the Study

The aim of this study was to investigate how mothers of children under five access and utilize child health information for disease management at Kawaala Health Centre IV, so as to recommend strategic interventions that enhance the provision, accessibility, and effective use of such information.

1.4 Specific Objectives

The study was guided by the following specific objectives:

- i. To examine the sources through which mothers of under-five children access child health information at Kawaala Health Centre IV.
- ii. To assess how mothers of under-five children utilize child health information in managing common childhood diseases.
- iii. To examine the role of health workers and health education programs in disseminating child health information to mothers of under-five children.
- iv. To identify the challenges affecting access to and utilization of child health information among mothers of under-five children.
- v. To recommend strategies for improving access to and utilization of child health information for disease management among mothers of under-five children.

1.5 Research Questions

The study was guided by the following research questions derived from the above objectives:

1. What sources do mothers of under-five children use to access child health information at Kawaala Health Centre IV?
2. How do mothers of under-five children utilize child health information in managing common childhood diseases?
3. What roles do health workers and health education programs play in the dissemination of child health information to mothers of under-five children?
4. What challenges affect mothers' access to and utilization of child health information at Kawaala Health Centre IV?
5. What strategies can improve access to and utilization of child health information for disease management among mothers of under-five children?

1.6 Significance of the study

The significance of this study is grounded in its contribution to global, regional, national, and local efforts aimed at improving child health outcomes through strengthened access to and utilization of health information.

At the global level, the study supports the achievement of the United Nations Sustainable Development Goals (SDGs). Specifically, it contributes to SDG 3: Good Health and Well-being, which targets ending preventable deaths of newborns and children under five by 2030 through improved health systems and information dissemination. It also aligns with SDG 4: Quality Education, where health literacy is recognized as a key component of lifelong learning and individual empowerment. By examining how caregivers access and use child health information, this research adds evidence to global efforts aimed at improving health literacy, promoting timely care-seeking, and enhancing disease management for young children.

At the regional level, the study aligns with priorities under the African Union Agenda 2063, which envisions a healthy, empowered, and productive African population. Strengthening caregivers' access to accurate and actionable health information is central to improving child health outcomes across the continent. This study contributes to the regional goal of enhancing healthcare delivery and supporting community-level health promotion interventions.

At the national level, the research supports Uganda's commitment to improving child health as outlined in the Third National Development Plan (NDP III), 2020/21–2024/25. The plan emphasizes improving health service delivery and ensuring equitable access to essential health information as a strategy for reducing under-five morbidity and mortality and advancing progress toward Universal Health Coverage. By exploring how mothers obtain and utilize child health information, this study provides insights that can guide the Ministry of Health and other stakeholders in strengthening community health communication strategies and health education initiatives.

At the local level, the study addresses a critical knowledge gap on how mothers of children under five at Kawaala Health Centre IV access and use child health information to manage common childhood illnesses. Understanding local information-seeking practices is

essential for designing targeted, context-specific interventions that improve timely disease management. Improved access to quality health information empowers mothers to make informed decisions, adopt effective home-based care practices, and seek professional care promptly.

Academically, the study expands existing literature on child health information behaviour in low-resource urban settings. By identifying barriers, facilitators, and patterns of information use, the findings provide a foundation for future research and practical policy formulation. The evidence generated can inform the design of communication strategies and interventions that strengthen health information delivery systems, ultimately supporting improved child health outcomes.

1.7 Operational definitions

For the purpose of this study, the following terms are defined as used within the research context:

Access: Access refers to the extent to which mothers of children under five are able to obtain child health information when they need it. This includes the physical, economic, social, and cultural ability to reach information sources such as health facilities, health workers, community health structures, media platforms, and digital channels without significant barriers related to distance, cost, language, or social norms.

Disease Management: Disease management refers to the actions and practices undertaken by mothers to prevent, recognize, treat, and control common childhood illnesses among children under five. In this study, it includes home-based care, timely health-seeking behavior, adherence to medical advice, use of prescribed treatment, and follow-up care based on the health information received.

Dissemination of Child Health Information: Dissemination of child health information refers to the process through which child health-related knowledge and guidance are communicated to mothers and caregivers. This includes structured and unstructured methods

such as health talks at health facilities, community outreach, communication by health workers and Village Health Teams, printed materials, mass media, and digital platforms, aimed at improving mothers' knowledge and practices related to child health.

Health Information: Health information refers to any form of knowledge, messages, or guidance related to child health that supports disease prevention, early detection, treatment, and overall child well-being. In this study, it includes information on nutrition, immunization, hygiene and sanitation, growth monitoring, common childhood illnesses, and appropriate care-seeking practices.

Health Information Needs: Health information needs refer to the specific types of child health information that mothers require to adequately care for their children under five. In this study, these needs include information on nutrition, immunization schedules, prevention and management of common childhood diseases, child development milestones, and when and where to seek medical care.

Utilization: Utilization refers to the extent to which mothers apply the child health information they receive in their day-to-day care of children under five. This includes translating information into practical actions such as adopting recommended feeding practices, ensuring timely immunization, maintaining hygiene, administering home-based care, and seeking professional healthcare when necessary.

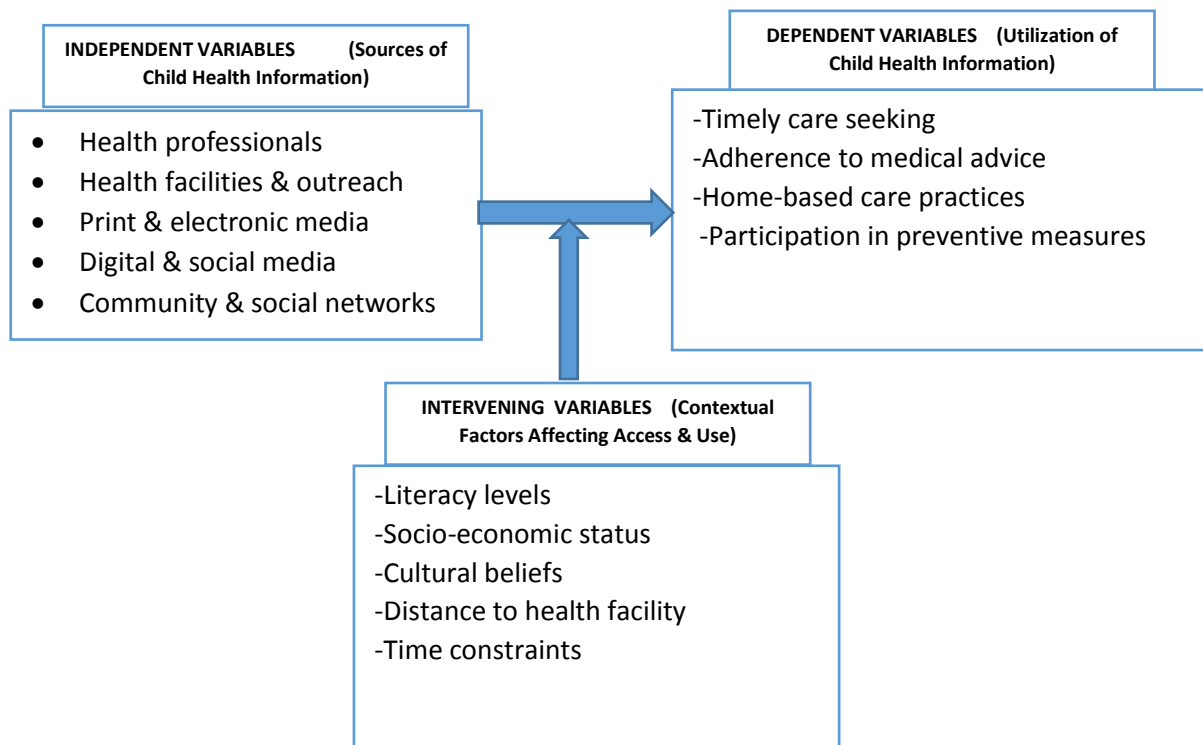
1.8 Conceptual framework

Concepts and ideas are fundamental to a research undertaking. As such, they ought to be carefully clarified as they are applied to make explicit their intended meaning in a particular investigation. The main concepts of this study are access, utilisation, health information, child health information and disease management. All these concepts have been clearly explained in section 1.7.

A conceptual framework provides a visual or narrative representation of the key factors in a study and illustrates how these factors are expected to relate to each other. In the context of this study on child health information at Kawaala Health Centre IV, the framework helps to

clarify how mothers access and utilize information for managing childhood diseases, while also identifying factors that may enhance or hinder this process.

Figure 1: Conceptual framework



Source: Researcher (2025)

In figure 1 the conceptual framework illustrates the relationship between access and utilization of child health information for disease management among mothers of children under five, while identifying factors that may enhance or hinder this process in line with the study objectives.

In accordance with Objective (i), the independent variables represent the sources of child health information available to mothers. These include health workers, health facilities, health education programs, Village Health Teams (VHTs), mass media (radio and television), digital platforms (such as mobile phones, WhatsApp, and SMS), and community networks including family members and peer mothers. These sources determine where and how mothers obtain information related to child health, disease prevention, and treatment.

Consistent with Objective (ii), access to these information sources leads to the central process of access to and understanding of child health information. Mothers must not only receive health information but also understand its content, relevance, and applicability before they can effectively use it in managing common childhood diseases.

The relationship between information sources and information utilization is influenced by intervening variables, which align with Objective (iv). These include mothers' literacy and health literacy levels, socio-economic status, cultural beliefs and practices, time constraints, distance to health facilities, and quality of communication by health providers. These factors may either facilitate or hinder mothers' ability to access, interpret, and apply child health information, thereby shaping the effectiveness of utilization.

In line with Objective (iii), the framework recognizes the role of health workers and health education programs as both information sources and facilitators of understanding through health talks, counseling, demonstrations, follow-up, and community outreach. Their involvement strengthens the link between information access and effective utilization.

The dependent variable, which corresponds to Objective (ii), is the utilization of child health information. This reflects how mothers apply the information received in practice, including timely care-seeking, adherence to medical advice, appropriate home-based care, immunization compliance, and preventive health behaviors.

In response to Objective (v), effective utilization of child health information leads to improved disease management and better child health outcomes, such as reduced disease severity, improved care practices, and lower morbidity among children under five.

Overall, the conceptual framework demonstrates that achieving effective utilization of child health information depends on the availability and quality of information sources, the role of health workers and education programs, and the influence of contextual factors. When these elements interact positively, mothers are better empowered to manage childhood illnesses effectively, contributing to improved child health outcomes.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

A literature review is a critical and structured synthesis of existing research and scholarly discourse that forms the theoretical and empirical foundation of a study (Snyder, 2019). It entails a systematic examination of previous research and publications related to a specific topic or research problem (Ridley, 2012). Through identifying, analyzing, and synthesizing scholarly works such as journal articles, books, theses, and reports a literature review helps researchers understand the current state of knowledge within a given field (Ridley, 2012). By doing so, it reveals key patterns, trends, gaps, and inconsistencies in the literature, thereby establishing a foundation for further research.

The purpose of a literature review is multifaceted. First, it provides a coherent summary of existing knowledge, presenting an overview of what is already known. Second, it identifies gaps or areas that require further exploration, which justifies the need for the current study. Third, it situates new research within the broader academic context, showing how the study contributes to or challenges existing knowledge (Booth, Sutton, & Papaioannou, 2016). In addition, reviewing literature helps researchers avoid unnecessary duplication and informs the development of theoretical frameworks and appropriate research methodologies.

In this study, the literature review was guided by the specific objectives of the research. It provides an overview of child health information and discusses the theoretical models that underpin the study. Finally, it highlights the research gap that this study seeks to address.

2.2 Overview of child health information

Child health information refers to the knowledge, messages, and advice that parents and caregivers use to promote their children's well-being, prevent illness, and make informed decisions about care (World Health Organization [WHO], 2021). It encompasses areas such as nutrition, immunization, hygiene, disease prevention, and guidance on when and where to seek

medical help. Access to reliable child health information empowers caregivers to make timely choices, recognize early signs of illness, and support children's healthy growth and development (UNICEF, 2023). Indeed, access to accurate and quality health information is not only a public health necessity but also a fundamental human right that directly influences morbidity and mortality outcomes (Silali, 2016).

In many communities, mothers primarily depend on health professionals and Village Health Teams (VHTs) as their main sources of child health information. While these actors play an indispensable role, over-reliance on them may inadvertently limit mothers' access to a broader range of information resources. Alternative communication channels such as radio programs, social media platforms, and community health fora could play a complementary role in expanding outreach and reinforcing the information shared at health facilities like Kawaala Health Centre IV (KHCIV). Exploring the effectiveness of these multiple channels could therefore help refine the Centre's child health information dissemination strategies and enhance their overall impact.

Despite global efforts to reduce child mortality, preventable illnesses such as acute respiratory infections (ARI), diarrhoea, and fever still accounted for approximately 5.9 million under-five deaths in 2015, with the highest burden recorded in sub-Saharan Africa (Azuh et al., 2019). Kebede and Gelaye (2019) also emphasize that child mortality rates in the region remain unacceptably high, suggesting that information dissemination strategies have not yet achieved their full potential. This raises a critical question: are current systems at KHCIV effectively translating health information into improved child survival outcomes, or do persistent knowledge gaps continue to hinder progress?

While access to health information has generally improved especially with the rise of digital technologies the extent to which caregivers use this information varies considerably. Factors such as education level, health literacy, cultural beliefs, and the availability of trusted health workers greatly influence how mothers interpret and apply health messages (Arias et al., 2024). Understanding these dynamics at KHCIV is therefore essential for developing tailored interventions that promote not just access, but meaningful utilization of child health information.

2.3 Theories/models that guided this study

In this study, two models were used to complement each other in investigating how mothers of children under five access and use health information to manage childhood diseases at Kawaala Health Centre IV. These were the Health Belief Model (HBM) and Wilson's Information Behavior Model that were adopted to complement each other. They have been explained below:

2.3.1 The Health Belief Model (HBM)

This model provides a valuable theoretical lens. The HBM posits that individuals' health-related behaviors are influenced by their perceptions of susceptibility to a health problem, the perceived severity of the condition, the benefits of taking preventive action, and the barriers to doing so (Rosenstock, Strecher, & Becker, 1988). In the context of this study, mothers' decisions to seek, access, and utilize health information may be shaped by their beliefs about the vulnerability of their children to common childhood illnesses, the potential consequences of these illnesses, and the perceived advantages of acting on available health information. For instance, a mother who perceives her child as highly susceptible to malaria and believes that accessing timely health information can prevent severe outcomes is more likely to actively seek and use relevant information. Conversely, perceived barriers such as low literacy, limited access to health resources, or mistrust of available information may inhibit information-seeking behavior.

2.3.2 The Wilson's Information Behavior Model

Complementing the HBM, Wilson's Information Behavior Model offers a framework for understanding the process through which individuals recognize information needs, seek information, and utilize it in practical contexts (Wilson, 1999). This model emphasizes that information behavior is not linear but dynamic, influenced by personal, contextual, and environmental factors. In this study, Wilson's model helps to explain the specific pathways through which mothers of the under fives identify health information needs, the sources they consult such as health workers, community health programs, or digital media and how effectively they integrate the acquired knowledge into caregiving practices. By considering both

the motivating factors highlighted by the HBM and the procedural aspects of information-seeking behavior described by Wilson, the study can offer a comprehensive understanding of the interplay between perception, access, and utilization of health information among mothers.

By integrating these two models, the study is positioned to examine both why mothers seek health information and how they access and apply it in managing childhood illnesses. This dual-theoretical approach not only strengthens the conceptual foundation of the research but also provides practical insights for designing interventions aimed at improving health information dissemination and utilization in similar healthcare settings. The subsequent sections present literature as per research objectives.

2.4. Child health information needs of the mothers of children under five

In many African countries, particularly those striving to achieve the Sustainable Development Goals (SDGs), access to accurate and timely child health information remains a major challenge (UNICEF, 2019). The early years of a child's life are especially fragile, with preventable illnesses such as malaria, diarrhea, and pneumonia continuing to contribute significantly to under-five mortality. Providing mothers with clear, relevant, and reliable health information is therefore not only a way to reduce the anxiety that often surrounds childhood illness but also a crucial step in empowering them to make informed decisions about disease prevention and management.

While the value of accessible health information is widely acknowledged, questions remain about how effectively this knowledge is shared and applied, particularly within community health facilities such as Kawaala Health Centre IV (KHCIV). Health professionals play a vital role in translating medical knowledge into practical advice that mothers can understand and act upon (Kiracho, 2017). Research shows that many mothers actively seek information to better interpret diagnoses and to explain health conditions to others, including their children. However, the question persists: does KHCIV have a structured system that ensures mothers not only receive but also comprehend this information? Moreover, how do factors such as language barriers, literacy levels, and the availability of health workers influence

this process? Identifying and addressing these information gaps is essential to ensure that child health information truly reaches and benefits the mothers who need it most.

Child survival initiatives rely heavily on accurate knowledge of the causes of death among children under five (Bryce et al., 2015). For such efforts to be effective, health information must not only address common childhood illnesses but also empower mothers to act on this knowledge in ways that prevent mortality. UNICEF (2019) cautions that without prioritizing health education, Africa could face as many as 31 million under-five deaths between 2018 and 2030. Yet, even with the growing availability of the internet and digital platforms, it remains uncertain whether mothers at Kawaala Health Centre IV (KHCIV) are making use of these resources or whether limitations in digital health literacy continue to pose a barrier.

Several studies such as Saagari, 2021, Mohamed, 2020, Leet 2017, among others, have explored the health information needs of mothers caring for children (Lee, 2017). Much of this research has focused on mothers of children with specific diagnoses such as asthma, chronic illnesses, mental health conditions, or Down syndrome. In contrast, the present study examines the information needs of mothers with children under the age of five. This focus is critical, as many of the illnesses affecting under-five children such as malaria, diarrhea, and pneumonia can be prevented or controlled through appropriate hygiene practices guided by maternal knowledge (Sagari, 2021).

Child hygiene encompasses everyday practices, including bathing, brushing teeth, and washing hands. Young children frequently come into contact with dirt and dust that carry infection-causing microorganisms, which can easily be transferred to their hands and subsequently ingested, leading to illness. Mothers therefore need adequate knowledge and understanding of child health and hygiene, as this not only helps them maintain cleanliness but also prevents the spread of infectious diseases. Such hygiene practices may include food hygiene, hand hygiene, body hygiene, and oral hygiene all of which are essential in promoting the health and survival of children under five.

Mohamed's (2020) study on child nutrition and breastfeeding revealed that many mothers introduced solid foods to their infants before the recommended six-month period of exclusive

breastfeeding. This finding highlights the need for mothers to be adequately informed about the benefits of exclusive breastfeeding. Breast milk provides essential antibodies that protect infants from bacteria and viruses, thereby strengthening their immunity. Evidence also shows that exclusively breastfed infants experience fewer health complications and, as a result, require fewer healthcare visits.

According to Ballantyne et al. (2019), mothers require access to information about rehabilitation services and specialized centers for children with cerebral palsy and other chronic conditions, such as cancer, in order to ensure continued care and meet their children's health needs. Caring for children with such conditions is both physically and psychologically demanding, placing significant responsibilities on mothers. As Rutten et al. (2018) note, mothers of children with chronic illnesses such as cancer require different types of information at various stages of the illness. During diagnosis and treatment, they seek knowledge about the stage of the disease, available treatment options, and potential side effects. In the post-treatment phase, they need information about recovery and long-term management to support their children's health and well-being.

Koohkan et al. (2019) further observed that cancer has become a common condition and is one of the leading causes of mortality among children. The sickness and hospitalization of children often create significant tension and anxiety for their caregivers. While families play an important role in providing medical care, prevention, and overall support to sick children, they require access to accurate and appropriate information about their child's condition in order to participate meaningfully in healthcare activities and decision-making. Increasing recognition, awareness, and access to information about a child's illness and treatment options can help families adapt more effectively to the situation. Moreover, timely, relevant, and comprehensive information not only improves the quality of life for child patients but also strengthens the capacity of families to provide adequate support.

Nega et al. (2019) conducted a study on sick-child feeding practices and associated factors among mothers of children under 24 months in Burayu Town, Ethiopia. Their findings revealed a critical need for parents particularly mothers to seek information on child feeding

practices, with special emphasis on nutrition. Adequate nutrition during infancy and early childhood is fundamental to ensuring optimal growth and the full development of a child's potential. The ability of children to achieve healthy growth standards largely depends on the sufficiency and quality of their dietary intake. Mothers' access to reliable information on feeding practices not only supports healthy growth but also helps prevent infectious diseases that often contribute to malnutrition. Therefore, it is essential that mothers receive proper guidance on optimal feeding practices for infants and young children, as this plays a central role in reducing morbidity and promoting child survival.

Other studies that have examined the health information needs of mothers, for instance, Lee (2018) found that Korean women in the United States prioritized information on diagnosis, treatment, medication, general health, and guidance on consulting a doctor, while also emphasizing child-specific topics such as vaccination, nutrition, dental health, parenting, and physical activity. Similarly, Abdulsalami (2013) observed that mothers of hospitalized children require complete and accurate information regarding diagnosis, treatment, prognosis, consent procedures, and care coordination with healthcare institutions. Both studies underscore the necessity of comprehensive, accessible, and understandable health information to enable mothers to make informed decisions and provide effective care. However, there is limited research on the specific health information needs of mothers with children under five in the context of health centers in Uganda. Understanding these needs at Kawaala Health Centre IV is essential to ensure that mothers receive relevant guidance on child health, nutrition, disease prevention, and care practices, ultimately supporting improved child health outcomes.

Rotich (2017), noted that there is a need for mothers to get information on how to connect with their babies or children. There is a need for mothers to understand and meet their needs with special concern on breastfeeding, how to latch and how to handle challenges related to breastfeeding. Understanding different expressions and discomfort is one reason mothers search for information. Besides that, mothers need information on monitoring growth and the progress of the baby and protecting them. It's important to note that babies are delicate and their babies are not well developed. So mothers may need information on how to assess the baby and

know when they are sick in order to protect them from getting ill and how they could alleviate any discomforts the baby might experience (Rotich, 2017).

Lee (2018) identifies significant topics of health information, including recommendations about hospitals or doctors, preventive care, diagnosis of specific diseases, diet and exercise, and medications. Mothers, according to Abdulsalami (2013), need information on how and where to get doctors and drugs. These findings are relevant to the study's objective of identifying the sources through which health care information is disseminated to mothers.

Jones et al, (2014) highlights that there is need for safety netting information as it contains information on signs and symptoms of serious and common illnesses among infants, illness management and where and when to seek help. Safety netting information given to parents during consultations advises them about when and where to seek further help, and also helps to prevent misdiagnoses and avoidable child mortality. In addition, safety netting reduces attendances in febrile children and has also been recommended in the management of acutely sick children and also reduces anxiety and uncertainty of mothers' decisions about when to consult and re-consult health professionals during acute childhood illnesses at home.

2.5 Information sources/channels through which mothers of under five years access child health information

Community-based health awareness events have proven to be effective in disseminating child health information, particularly within informal and low-income settlements. Their success, however, often depends on how consistently they are conducted and the degree of involvement from local stakeholders. Kankam (2024) underscores the positive impact of such community initiatives in improving maternal and child health outcomes. Yet, it is worth asking whether similar programmes are regularly implemented at Kawaala Health Centre IV (KHCIV). If such initiatives are irregular or poorly attended, their potential to influence positive health behaviours and outcomes among mothers may be greatly reduced.

Health education campaigns that use mass media especially radio and television remain another powerful means of reaching large audiences. In Uganda, radio continues to be the most accessible communication medium for health messages (Uganda Bureau of Statistics [UBOS], 2020). However, the success of these campaigns relies not only on message reach but also on how well the information is retained, understood, and acted upon. It is therefore important to examine whether KHCIV effectively utilizes radio or other mass media platforms to disseminate child health information, and whether there is tangible evidence that mothers engage with and apply the knowledge shared through these channels.

Printed health materials are also a common strategy in many health facilities for educating mothers about key topics such as immunization, nutrition, and hygiene. Although these materials are typically designed to be simple and visually engaging, their impact is limited if they are not adequately distributed or if literacy levels are low. Understanding whether such materials are readily available and actively used at KHCIV could reveal important gaps in communication and highlight the need for complementary or alternative approaches to information delivery.

Digital health platforms have emerged as innovative tools for sharing child health information. Technologies such as mobile applications, SMS reminders, and social media campaigns can enhance access and timeliness of information dissemination. However, in many low-income settings, digital literacy and internet access remain major constraints (Nanyunja et al., 2022). If KHCIV is not yet integrating digital tools into its communication strategies, doing so could significantly improve outreach and engagement, particularly among younger and more tech-aware mothers.

Community Health Workers (CHWs) continue to play a pivotal role in bridging the gap between mothers and health facilities. Their contribution goes beyond delivering information they also build trust and encourage positive health-seeking behaviour. However, their effectiveness depends heavily on the quality of training, regular supervision, and motivation they receive (Ministry of Health [MOH], 2016/17–2019/20). At KHCIV, assessing whether CHWs are adequately supported and equipped to share reliable health information is essential. Any gaps

in their capacity could undermine mothers' ability to make informed health decisions for their children.

2.6 Child Health Information Dissemination and Utilization by Mothers of Children under Five

Access to accurate and timely child health information is critical for reducing infant morbidity and mortality, particularly in low-resource settings. Effective dissemination and utilization of such information by mothers play a crucial role in promoting child well-being and preventing common childhood illnesses (UNICEF, 2019). However, several challenges hinder the flow and use of health information, including gaps in communication strategies, accessibility, and socio-cultural influences.

Health professionals remain the primary source of child health information for mothers, especially in public health facilities. Medical practitioners, nurses, and midwives provide guidance on immunization, nutrition, hygiene, and disease prevention during antenatal and postnatal visits (Kiracho, 2017). Despite their central role, reliance on direct consultations may limit access for mothers who do not frequently visit health facilities. This raises the question of whether Kawaala Health Centre IV (KHCIV) has adequate systems for follow-up and continuous information sharing for mothers who rarely attend the facility.

Across Africa, various strategies are employed to disseminate health information, ranging from print and broadcast media to community-based oral communication (Sokey et al., 2018). Oral communication occurs during routine antenatal visits, community dialogues, and health talks, and is often complemented by storytelling, songs, and performances to convey key health messages. During the COVID-19 pandemic, health workers played a frontline role in ensuring that communities, especially mothers of infants, received timely and accurate information, bridging gaps caused by communication inequalities (Fergus et al., 2021). Such experiences highlight the importance of equipping health workers with up-to-date guidance to reduce health disparities and improve information delivery.

Government ministries, such as the Ministry of Health and the Ministry of Public Health and Sanitation, provide structured channels for disseminating health information to communities (Odini, 2016). Mothers play a central role in the health of children under five, particularly in implementing daily care practices. They utilize information received through campaigns and programs on immunization, nutrition, hygiene, and prevention of mother-to-child transmission of diseases. Community-based health education campaigns including dialogues, radio programs, and mobile health outreaches further expand access to child health information (Kankam, 2024). In Uganda, radio remains one of the most accessible mediums for public health messaging in both urban and rural areas (UBOS, 2020). Nevertheless, a critical question remains: do these messages effectively reach and engage mothers at KHCIV, and if not, what alternative strategies could enhance their impact?

Printed health materials, such as brochures, posters, and flyers, are commonly used to provide information on immunization, nutrition, and hygiene (Silali, 2016). While visually appealing and easy to understand, these materials are limited by literacy levels and language barriers. At KHCIV, it is important to assess whether materials are available in local languages and whether mothers actively use them. Where literacy is low, alternative strategies such as pictorial materials or audio messages may be more effective.

Digital platforms offer an increasingly innovative approach to child health information dissemination. Mobile health (mHealth) applications, SMS reminders, and online health portals provide mothers with instant access to health advice (Nanyunja et al., 2022). However, digital literacy, internet access, and affordability remain significant barriers. Integrating digital tools alongside traditional channels could create a hybrid model that maximizes reach and engagement at KHCIV.

The ability of mothers to use health information effectively is influenced by education, socio-economic status, and cultural beliefs (Bryce et al., 2015). Educated mothers are more likely to seek, understand, and apply health information, resulting in better child health outcomes. In low-literacy settings, oral communication and community-based interventions

remain crucial. Understanding the literacy levels of mothers accessing services at KHCIV is therefore vital in tailoring health education strategies.

Community Health Workers (CHWs) are instrumental in linking mothers to health services and ensuring understanding of health messages. They conduct home visits, provide counseling on nutrition, and facilitate referrals to health facilities (MOH, 2016/17–2019/20). However, challenges such as inadequate training, insufficient supervision, and lack of incentives can hinder their effectiveness. Strengthening CHW programs at KHCIV could enhance the utilization of child health information by mothers.

Cultural beliefs and traditional practices also shape how mothers interpret and act upon health information. In some communities, traditional remedies may be preferred over medical advice, affecting adherence to recommended health practices (Azuh et al., 2019). It is therefore essential to identify cultural factors within KHCIV’s catchment area and develop interventions that respect local beliefs while promoting evidence-based practices.

Finally, access to healthcare services significantly influences how mothers apply child health information. Even when adequate information is provided, financial constraints, long distances to health facilities, and insufficient healthcare infrastructure can prevent mothers from acting on the guidance they receive (Kebede & Gelaye, 2019). Identifying and addressing these systemic barriers at KHCIV is critical to ensure that child health information translates into improved health outcomes.

2.7 The role of Health workers and Health education programs in facilitating child health information dissemination

A Community Health Worker (CHW) is a frontline public health professional who is a trusted member of, and possesses a deep understanding of, the community they serve (Ross, 2024). CHWs act as intermediaries between the medical system and marginalized communities, facilitating access to services and improving both the quality and cultural relevance of healthcare delivery. By bridging this gap, CHWs promote health literacy, encourage the use of preventive

services, and ensure that health information is effectively communicated and understood within the community.

In promoting child health, CHWs play multiple roles. They mobilize communities by organizing events such as nutrition and sanitation days and supporting government programs, including vaccination campaigns. Additionally, CHWs provide health promotion and counseling, aiming to encourage behaviors that improve maternal and child health, such as breastfeeding, proper child nutrition, immunization, and family planning. They also deliver preventive services, including educating families on immunization schedules, mobilizing communities to attend vaccination sessions, administering vaccines such as oral polio, and distributing supplements like vitamin A and deworming medications (Glenton, 2021). Enhancing the provision, access, and utilization of child health information among mothers of children under five requires a multifaceted approach that combines digital solutions, robust policy frameworks, and efficient health management systems. Addressing barriers to information dissemination and utilization can significantly improve child health outcomes. Key strategies include leveraging electronic health technologies, implementing effective health information policies, and strengthening Health Management Information Systems (HMIS).

Electronic health (eHealth) technologies have emerged as essential tools for improving access to and use of health information. Al-Shorbaji (2021) defines eHealth as the use of information and communication technologies (ICTs) to support healthcare services, health surveillance, and knowledge dissemination. Digital health tools play a critical role in reducing health disparities by enhancing the quality of care, supporting health worker training, and ensuring that mothers can access timely and accurate child health information. Platforms such as mobile health (mHealth) applications and telemedicine can bridge gaps in healthcare access, particularly for mothers in remote or underserved areas.

A well-defined health information utilization policy is equally important. Yehula (2023) emphasizes that structured policies guide the design and implementation of healthcare strategies, enabling policymakers and practitioners to develop targeted interventions that enhance maternal and child health outcomes. Effective policies ensure that health data is accurately collected,

analyzed, and used in decision-making. Challenges such as poor data quality, inefficient reporting mechanisms, and inadequate monitoring systems can undermine these efforts. Addressing these issues through capacity-building initiatives, validation processes, and systematic oversight strengthens the use of health information and improves access for mothers.

Functional Health Management Information Systems (HMIS) are also critical for the timely collection, processing, and dissemination of child health information. Gonete (2021) notes that HMIS, whether electronic or paper-based, supports patient registration, file tracking, and case monitoring, providing high-quality data for evidence-based decision-making. Strengthening HMIS involves enhancing data collection methods, training healthcare workers in data utilization, and integrating real-time reporting tools to improve information flow. Efficient HMIS implementation ensures that child health information reaches mothers promptly and is used effectively to support informed healthcare decisions.

Despite the growing body of literature on child health information dissemination and utilization, several research gaps remain. While theoretical frameworks provide foundational knowledge, empirical research is needed to examine the specific context of Kawaala Health Centre IV in Uganda. Additionally, although internet access is increasingly highlighted as a source of health information, the extent to which mothers actively use online platforms for child health knowledge remains unclear, particularly in low-resource urban settings. Addressing these gaps is essential for developing context-specific strategies that enhance the provision, access, and utilization of child health information.

2.8 Challenges in accessing and utilizing child health information by the mothers of children under five

The effective dissemination and utilization of child health information among mothers of children under five years is influenced by several challenges. These challenges, shaped by social, economic, and cultural factors, directly affect maternal decision-making and, consequently, child health outcomes. Key barriers include health literacy, socioeconomic constraints, educational levels, cultural beliefs, language differences, physical accessibility to healthcare, and trust in healthcare providers.

Health literacy is a critical determinant of a mother's ability to access, comprehend, and apply health information effectively. Morrison (2019) notes that mothers with limited health literacy often struggle to understand medical advice, which undermines their capacity to make informed decisions regarding their children's care. Low health literacy can hinder recognition of symptoms, appropriate home care, and timely healthcare-seeking behaviors, thereby negatively impacting disease prevention, acute illness management, and chronic care. Targeted educational interventions aimed at improving health literacy can therefore enhance mothers' ability to utilize health information and ultimately improve child health outcomes.

A mother's financial status also plays a significant role in accessing health information and related services. Low-income mothers frequently face barriers such as inadequate healthcare facilities, limited transportation, and the high costs associated with medical consultations and educational materials (Uganda Bureau of Statistics [UBOS], 2020). These financial constraints restrict their ability to obtain timely and accurate health information, exacerbating disparities in child health outcomes. Implementing affordable healthcare programs, community outreach initiatives, and subsidized educational resources can help mitigate these economic barriers and improve access to essential child health knowledge.

A mother's level of education is directly linked to her ability to interpret and apply health information. Research by the World Health Organization (WHO, 2018) indicates that mothers with lower levels of education are less likely to actively seek out and comprehend health-related materials, which negatively impacts their children's health. Limited education restricts their ability to navigate the healthcare system, understand medical terminology, and implement recommended health practices. To bridge this gap, tailored educational programs that focus on improving health literacy among less-educated mothers are necessary.

Cultural perceptions of health and illness significantly influence how mothers access and utilize child health information. Wallace and Kapiri (2019) highlight that in some communities, traditional beliefs conflict with modern medical advice, leading to skepticism or outright rejection of health information provided by healthcare professionals. Cultural norms may also shape maternal behaviors, dictating which health interventions are acceptable or discouraged.

Effective health information dissemination requires culturally sensitive approaches that integrate traditional practices with modern healthcare strategies to ensure broader acceptance and adherence.

In multilingual settings such as Uganda, language differences present a major challenge in the effective dissemination of health information. Many health materials are available primarily in English or other dominant languages, leaving mothers from rural or marginalized communities without accessible resources (Ministry of Health [MOH], 2021). The absence of translated health materials and interpreters in healthcare facilities further hinders effective communication and comprehension. Addressing this challenge by providing health information in local languages and employing trained interpreters can improve access and comprehension among diverse populations.

Limited availability and accessibility of healthcare facilities present another significant barrier to the dissemination and utilization of health information. According to UBOS (2020), many rural and informal settlement areas have sparse healthcare facilities, making it difficult for mothers to access timely health education and services. Also, overcrowded and under-resourced health centers may not have the capacity to provide personalized health guidance to all mothers. Strengthening healthcare infrastructure, including mobile clinics and community health workers, can enhance access to vital health information in underserved areas.

Pelentsov et al. (2016) highlight the challenges faced by mothers caring for children with rare diseases, including limited access to health services, lack of experienced health professionals, and the desire for better communication and coordination of care. In addition, Pelentsov... et al (2016) study indicates that mothers face emotional and financial stress as they care for children, especially the ones with a rare disease. They face lifetime challenges and personal sacrifice, often with limited access to health services and support, and lack of experienced health professionals to aid in their provision of care and decision making for their child. Furthermore, Pelentsov et al. (2016) highlights the emotional and financial stress faced by mothers caring for children with rare diseases, underscoring the need for better communication, coordination of care, and access to information on parental support groups. This information

dissemination aligns with the study's objective of investigating how child health information is disseminated and utilized by mothers.

Rare disease are further characterized by delayed or incorrect diagnosis, lack of scientific knowledge and information, limited access to support and services hence they desire better communication and coordination of care, access to information on parental support groups. Jones et al. (2014) emphasize the importance of safety netting information to guide parents on when and where to seek further help, reducing re-attendances and preventing misdiagnoses. On the other hand, Rotich (2017) stresses the importance of mothers understanding how to connect with their babies or children, particularly focusing on breastfeeding, growth monitoring, and recognizing signs of illness.

Salman (2015) notes that inadequate access to health information has remained a main challenge in knowledge based healthcare in developing countries. Accessing health information in the rural areas by the physicians still remains their main concern due to the wide area of practice and their geographical isolation which limits them from accessing information sources like medical libraries and lack of contemporary ICT equipment. ICT has been noted to be the major source of health information that medical education facilities, primary care physicians need a wide range of health information to manage their patients, thus accurate, reliable and timely information is important for management and decision making.

Kassim (2020) highlights that poor road infrastructure is a significant barrier for mothers seeking health information. In many rural areas, the absence of tarmac roads forces mothers to rely on motorcycles (“boda boda”) as the primary means of transport. This mode of transport is often risky for both the mother and the child, making it difficult to reach health facilities safely. Additionally, outreach programs are sometimes limited by insufficient skilled healthcare providers, inadequate time allocation, and lack of privacy, forcing mothers to seek information from less-trained or informal sources (Kassim, 2020).

Mothers consistently report that health workers are trusted and reliable sources of child health information (Javanmardi et al., 2019). However, short-term visits, high workloads, and limited availability of providers reduce the opportunities for mothers to access guidance, leading

to dissatisfaction. Furthermore, mothers often struggle to distinguish between correct and incorrect health information, particularly when using multiple sources (Javanmardi et al., 2019; Wasike, 2013). The internet and social networks, while widely used, also contain inaccurate or non-scientific information, necessitating verification from healthcare providers.

Economic factors such as poverty directly limit mothers' ability to access and utilize health information. Low-income mothers may prioritize household needs such as food, clothing, and education over health information and services, further restricting their engagement with child health programs (Kassim, 2020; Westgard et al., 2019). Similarly, educational level and health literacy are critical determinants of information utilization. Mothers with low health literacy may have difficulty understanding diagnoses, medication instructions, and health messages, which reduces their use of preventive and curative services (Morrison, 2019; Ostrow, 2019).

While digital platforms such as mobile health applications, SMS reminders, and online portals have the potential to enhance access to health information, underprivileged mothers often lack the necessary skills or resources to use them effectively (Dluhos-Sebesto et al., 2021; Obasola, 2021). Challenges include the cost of internet access, low computer literacy among both mothers and health practitioners, and language barriers in online content. ICT interventions, although promising, must be adapted to local capacities and contexts to ensure equitable utilization of health information.

Cultural beliefs and traditional practices influence how mothers interpret and act upon health information. Some mothers may prefer traditional remedies over medical advice, affecting adherence to recommended practices (Azuh et al., 2019). Trust in healthcare providers also plays a pivotal role in information uptake. Past negative experiences, perceived discrimination, or misinformation can create skepticism and reduce mothers' willingness to seek or follow professional guidance (Nanyunja et al., 2022). Building trust through respectful, culturally competent care and sustained community engagement is therefore essential.

Access to and utilization of child health information is not equal across different socio-economic groups. Rural women and the urban poor often face greater barriers in accessing health facilities and information resources (Obianuju, 2018). Social media and other online platforms offer new channels for information, which are often more accessible to educated and higher-income mothers, thereby widening disparities (Moon et al., 2019; Sokey et al., 2018). Research indicates that older age, higher income, and higher education are associated with increased use of the internet for health information, while disadvantaged groups continue to rely on traditional sources such as radio, television, print media, and social networks (Dluhos-Sebesto et al., 2021).

From the above literature, the mothers' ability to access and utilize child health information is shaped by a combination of infrastructural, socio-economic, educational, digital, and cultural factors. Effective interventions must address these barriers comprehensively, ensuring that health information is accurate, accessible, culturally sensitive, and delivered through multiple channels that accommodate diverse literacy and socio-economic levels.

2.9 Strategies to improve access and utilization of Child Health Information for Disease Management among Mothers of Children under Five

Improving access to and utilization of child health information is critical for effective disease management and overall child well-being. Mothers of children under five require accurate, timely, and culturally appropriate information to recognize symptoms early, seek prompt treatment, and adopt preventive health practices. Several strategies have been identified to enhance the provision, accessibility, and practical use of child health information.

One key strategy is the strengthening of community-based health education programs. Community health workers (CHWs) play a vital role in this approach, as they are trusted members of the community and have a deep understanding of local cultural practices (Ross, 2024). CHWs can conduct home visits, organize community dialogues, and facilitate outreach activities, such as nutrition and sanitation days, to provide mothers with relevant information about disease prevention, immunization schedules, and early signs of childhood illnesses. By building trust and fostering interpersonal communication, CHWs help ensure that mothers understand and apply health messages effectively (Glenton, 2021).

Leveraging digital health technologies is another effective strategy. Mobile health (mHealth) applications, Short Message Services (SMS) reminders, telemedicine platforms, and online educational resources provide mothers with real-time access to information, allowing for better disease management and timely health-seeking behavior (Al-Shorbaji, 2021). Digital platforms can also be tailored to deliver culturally relevant messages in local languages, overcoming literacy barriers. Training mothers in digital literacy and providing affordable access to mobile technologies can further improve the reach and impact of these interventions.

Mass media campaigns remain a powerful tool for increasing awareness and promoting healthy practices. Radio and television programs can disseminate child health information widely, particularly in settings where literacy levels are low (UBOS, 2020). These campaigns should be designed to include follow-up mechanisms, such as community discussions or health center visits, to reinforce learning and encourage adoption of recommended practices. Social media platforms can also serve as interactive forums where mothers exchange information, receive professional guidance, and engage in peer support networks (Moon et al., 2019; Sokey et al., 2018).

Improving health facility-based interventions is essential. Health centers should ensure that mothers receive clear, timely, and actionable information during visits, including education on symptom recognition, disease prevention, and home-based care practices. Providing printed materials, visual aids, and demonstration sessions can enhance understanding, particularly for mothers with low literacy. Integrating child health information into routine services, such as antenatal and postnatal visits, ensures continuity and reinforces messages delivered through other channels (Kiracho, 2017).

Strengthening health management systems is also critical. Effective Health Management Information Systems (HMIS) allow healthcare providers to track patient data, monitor disease trends, and tailor information dissemination strategies to community needs (Gonete, 2021). Policies that support systematic collection, analysis, and use of child health information can improve decision-making and ensure that mothers receive relevant and evidence-based guidance (Yehula, 2023).

Finally, addressing socioeconomic and cultural barriers is fundamental to improving utilization. Strategies may include offering free or subsidized healthcare services, ensuring transportation options to health facilities, and providing culturally sensitive education that respects local beliefs while promoting evidence-based practices (Kassim, 2020; Azuh et al., 2019). Engaging community leaders and family members in health education initiatives can also enhance acceptance and adherence to recommended disease management practices.

In conclusion, a multifaceted approach that integrates community engagement, digital technologies, mass media, facility-based education, health system strengthening, and socio-cultural considerations is essential to improve access and utilization of child health information among mothers of under-five children. By implementing these strategies, healthcare providers and policymakers can empower mothers to make informed decisions, manage childhood illnesses effectively, and ultimately reduce child morbidity and mortality.

2.10 Research Gap

While the existing literature, such as Nanyunja et al., (2022), Kassim (2020), Ministry of Health [MOH], (2021), Uganda Bureau of Statistics [UBOS], (2020), among others, provides a solid theoretical foundation on child health information dissemination, utilization, and the role of community health workers, there is limited empirical evidence addressing the specific experiences and challenges faced by mothers in urban low-resource settings. In addition, several gaps remain, particularly in the context of urban health facilities like Kawaala Health Centre IV in Uganda. Most studies have focused either on rural communities or generalized populations, leaving the urban context underexplored.

Another significant gap concerns the use of digital platforms for child health information. Although mobile health (m-health) applications, social media, and online resources have been identified as potential channels for information dissemination, little is known about how mothers in urban Uganda actively access, interpret, and apply online health information in managing childhood diseases. In addition, there is also limited understanding of how factors such as internet access, digital literacy, and socioeconomic status influence the effective use of these technologies.

Furthermore, while several studies highlight the barriers to accessing child health information such as poverty, literacy, cultural beliefs, and healthcare infrastructure, there is a lack of research on how these barriers interact and impact the practical utilization of health information for disease management. For instance, it remains unclear how mothers navigate conflicting information from multiple sources, or how trust in healthcare providers affects adherence to recommended practices, hence, a need for this study to fill these gaps.

Finally, although community health workers are recognized as critical intermediaries in disseminating health information, there is limited evidence on their effectiveness in urban health facilities where the population is large, diverse, and mobile. The adequacy of their training, supervision, and support, as well as their capacity to bridge gaps in health literacy, has not been thoroughly examined in the urban Ugandan context.

Addressing these gaps is essential to develop context-specific strategies that improve the provision, access, and utilization of child health information for disease management, ultimately contributing to better health outcomes for children under five.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methodology used in the study. It covers the research design, study area, population, sampling and sample size, data collection methods, data quality control, data analysis, ethical considerations, limitations, and delimitations.

3.2 Research Approach

A qualitative research approach was adopted to obtain detailed insights into mothers' beliefs, experiences, and behaviours related to child health information. Qualitative research focuses on understanding human experiences within their natural settings (Vashistha, 2019). This approach allowed the researcher to explore how mothers access, interpret, and apply child health information in disease management.

3.3 Research Design

The study employed a descriptive case study design, which allows an in-depth understanding of a phenomenon within its real-life context (Yin, 2018). This design was suitable for exploring how mothers of under-five children at Kawaala Health Centre IV access and utilize child health information. Multiple data sources, including interviews, focus group discussions (FGDs), and document reviews, were used to triangulate findings and build a comprehensive understanding of the case.

3.4 Area of Study

The study was conducted at Kawaala Health Centre IV in Kawempe Division, Kampala. The facility serves a densely populated, low-income community of approximately 92,000 residents, many living in informal settlements with limited access to health services (Blasini et al., 2021). The health centre provides services such as immunization, nutrition counselling, and growth monitoring. Despite these services, child mortality remains high at 42 per 1,000 live births

(MoH, 2023; UNICEF, 2024), largely due to preventable illnesses. Challenges such as limited dissemination channels, low literacy, and resource constraints (UBOS, 2020) justify the need to examine how health information is communicated and used at this facility.

3.5 Population

The study targeted mothers of children under five years attending Kawaala Health Centre IV. According to the facility register (2024), the centre serves about 130 mothers weekly, with daily attendance ranging from 20 to 60. To enhance data credibility, the study also involved health personnel who play roles in child health information dissemination, including 20 health workers, 3 Community Health Workers (CHWs), 2 doctors, and 5 Village Health Team (VHT) heads, totalling 30 health-related participants.

3.6 Sampling and Sample Size

The study population comprised mothers of children under five years who seek child health services at Kawaala Health Centre IV, as well as health workers directly involved in the provision and management of child health information. According to outpatient department (OPD) and maternal and child health unit records, the facility serves approximately 80–120 mothers daily and between 500–700 mothers weekly, providing a suitable context for participant selection.

Given the qualitative nature of the study, sample size determination was guided by the principle of data saturation, whereby data collection continues until no new themes or insights emerge (Shetty, 2020). Two categories of participants were included in the study: mothers of children under five and health workers.

1. Mothers of Children under Five

Purposive and convenience sampling techniques were used to identify mothers who met the inclusion criteria, namely having a child under five years and willingness to participate in the study. Initially, three Focus Group Discussions (FGDs) were conducted to explore a broad range of perspectives on access and utilization of child health information. In line with Eeuwijk and

Angehrn's (2017) recommendation of 6–12 participants per FGD, the discussions involved the following numbers:

- FGD 1: 6 mothers
- FGD 2: 7 mothers
- FGD 3: 7 mothers

This resulted in an initial total of 20 mothers participating in the FGDs. However, analysis of the FGD data revealed that thematic saturation was achieved by the end of the second FGD, with no substantially new themes emerging in the third discussion. Consequently, for the purposes of detailed analysis and reporting, the study retained data from 10 mothers, drawn from the first two FGDs, whose contributions were most complete, information-rich, and directly aligned with the study objectives.

The reduction from 20 to 10 participants was therefore intentional and methodological, aimed at enhancing analytical depth, managing redundancy, and ensuring clarity in qualitative interpretation, rather than reflecting participant attrition or exclusion based on non-response. The final sample of 10 mothers was considered adequate to provide rich, credible, and diverse insights into the access and utilization of child health information for disease management.

2. Key Informants

The number of key informants at the facility was small; therefore, a census approach was used to include all individuals occupying relevant roles. This ensured complete coverage of staff engaged in child health information dissemination. Key informants selected included:

- Community Health Workers/Administrators
- Medical Doctors
- Midwives
- VHT Leaders

Their numbers were determined by the actual functional staff present at the time of data collection.

Table 1: Sample Size of Key Informants

Informants / Interviewees	Sample Size
Community Health Workers/Administrators	03
Medical Doctors	02
VHT Leaders	02
Midwives	03
Total	10

Source: Primary Data, 2024

3.7 Sampling Strategies

The study employed non-probability sampling techniques, specifically purposive sampling, convenience sampling, and a census approach.

1. Purposive Sampling

Purposive sampling was used to select medical doctors, midwives, VHT leaders, and Community Health Workers. These individuals were chosen because:

- They directly disseminate child health information
- They engage with mothers during treatment, immunization, antenatal, and postnatal services
- They understand the facility’s communication systems and common challenges faced by caregivers

Their inclusion was based strictly on their roles and relevance to the study objectives.

2. Convenience Sampling

Convenience sampling was applied to mothers of children under five who were:

- Present at the facility on the days of data collection
- Willing to participate
- Able to provide relevant experiences regarding access and use of child health information

This method enabled efficient recruitment within a busy health facility environment.

3. Census Approach for Key Informants

Because the number of key informants at Kawaala Health Centre IV was small, the study included *all* individuals in the relevant categories. This ensured:

- Comprehensive representation
- Accurate description of facility-level information delivery systems
- No exclusion of important perspectives

3.8 Data Collection Methods and Instruments

Multiple qualitative methods were used to obtain comprehensive and triangulated data on how mothers access and utilize child health information. The study employed Focus Group Discussions (FGDs), In-depth Interviews, an Observation Schedule, and a Document Review Checklist.

3.8.1 Focus Group Discussions (FGDs)

Three FGDs were conducted with mothers of children under five. FGDs explored:

- mothers' sources of child health information
- how they receive, interpret, and apply such information
- challenges faced in accessing or using information
- their experiences with facility health education

Participants were grouped by age and caregiving experience to promote open discussion. Each FGD lasted 40–60 minutes and was guided by an FGD tool (Appendix I). Data saturation was reached by the third FGD when no new perspectives emerged.

3.8.2 In-depth Interviews

Ten interviews were conducted with key health personnel, including medical officers, nurses, midwives, CHWs, and VHT leaders. Interviews gathered:

- how health workers disseminate child health information
- strategies used to educate mothers
- barriers affecting effective communication
- staff perceptions of mothers' utilization of information

- institutional practices that shape information access

Interviews were conducted in quiet spaces within the facility and guided by an interview schedule (Appendix II). They complemented FGDs by providing professional insights and clarifying issues raised by mothers.

3.8.3 Observation Schedule

Structured observations were conducted using an observation checklist (Appendix III). Observations focused on:

- availability and visibility of health education materials (posters, charts, brochures)
- condition and use of notice boards
- conduct of health education sessions
- interactions between staff and mothers during child health visits

This method provided objective evidence on the practical availability and accessibility of child health information within the facility and verified claims from FGDs and interviews.

3.8.4 Document Review

Relevant facility documents were reviewed using the READ (Readying, Extracting, Analysing, Distilling) approach. Documents included:

- annual health facility reports
- immunization registers
- child health education posters
- policy guidelines and service brochures

Document review provided secondary data on:

- common childhood illnesses and utilization trends
- existing communication materials
- health education activities conducted at the facility
- facility-level reporting on child health

It also helped triangulate primary data since these documents were produced independently of the study (Johnson, 2017).

Figure 2: Kawaala Health Centre IV brochure



Source: Field Data, 2024

The researcher had an opportunity to review some of the health care chart. Below is an example of the baby's health care card. For confidentiality purposes, the information was erased. An example of the health care card is shown below:

Figure 3: Health care card

Source: Field Data (2024)

3.9 Data Quality Control

Creswell (2014) posits that the credibility of research findings is anchored in the quality of the data collected, which includes accuracy, reliability, and validity. To ensure the integrity and robustness of the findings in this study, the researcher adopted deliberate strategies for quality control across all stages of data collection and analysis. These included:

3.9.1 Reliability

According to Oso and Onen (2008), maintaining satisfactory levels of reliability is essential to ensuring that research findings accurately reflect reality and can be replicated. Since this study adopted a qualitative research approach, the focus was primarily on reliability rather than statistical validity. In this context, reliability refers to the consistency of results when the same instruments are applied repeatedly under similar conditions. To ensure reliability, the following strategies were employed (Onen, 2008):

- i. **Piloting of data collection Instruments:** The data collection tools, including the interview schedule and focus group discussion (FGD) guide, were piloted prior to the main fieldwork. Feedback from the pilot was used to refine the instruments for clarity, relevance, and coherence, ensuring that questions were well understood and effectively captured the intended information.
- ii. **Triangulation of Data Sources:** To minimize bias and enhance the dependability of findings, a triangulation strategy was adopted. Multiple data collection methods including document reviews, key informant interviews, and focus group discussions were used to provide complementary perspectives on the research problem, increasing the depth and breadth of understanding.
- iii. **Careful Selection of Respondents:** Participants were purposively selected based on their relevance to the research objectives, ensuring that only those with practical knowledge or lived experiences relating to child health information and disease management were included. This approach strengthened the consistency and trustworthiness of the data collected.

Through these measures, the study aimed to ensure that the findings were consistent, dependable, and reflective of the actual experiences and practices of the participants.

According to Carcary (2009), reliability in qualitative research refers to the consistency, stability, and dependability of the data collection and analysis processes. Ensuring reliability involves maintaining uniformity in procedures and demonstrating that the research findings are grounded in systematic and repeatable methods. In this study, several measures were taken to enhance reliability:

i. Consistent Use of Data Collection Instruments:

The same data collection instruments were employed across all focus group discussions (FGDs) and interviews to maintain uniformity and ensure comparability of responses.

ii. Standardized Interview Protocol:

All interviews and discussions were guided by a consistent set of core questions. However, flexibility was allowed for open-ended elaboration to enable participants to express their views freely and provide rich, context-specific insights.

iii. Constant Comparative Analysis:

During and after data collection, responses were continuously compared to identify recurring themes, patterns, and variations. This iterative process helped to ensure consistency in interpretation and thematic development.

iv. Consideration of Deviant Cases:

Outlier or deviant cases were deliberately examined and incorporated into the analysis to capture diverse perspectives. This enhanced the depth of understanding and strengthened the validity of the study's conclusions.

v. Use of Data Matrices and Summary Tables:

Data matrices and summary tables were developed during analysis to visually organize, categorize, and compare information across participant groups. This facilitated systematic cross-referencing and improved analytical consistency.

Guided by Rubin and Babbie (2008), reliability was further reinforced through repeated cross-checking and verification of data obtained from interviews, FGDs, and document reviews. The convergence of findings across these multiple sources demonstrated the internal consistency and dependability of the research outcomes.

3.9.2 Credibility and Trustworthiness

Credibility and trustworthiness are fundamental in qualitative research, as they ensure that the study's findings genuinely reflect participants' lived experiences and can be considered dependable and authentic (Mohamad et al., 2015; Creswell, 2014). To enhance the credibility of this study, several strategies were employed to strengthen the rigor and dependability of the research process.

i. Professional Facilitation of Focus Groups:

A qualified and experienced midwife was engaged to moderate the focus group discussions involving mothers of children under five years of age. The midwife's professional background in maternal and child health provided not only technical expertise but also the empathy and cultural sensitivity necessary to foster a supportive environment. This contributed to open, in-depth, and meaningful discussions among participants.

ii. Active Researcher Involvement:

While the midwife facilitated the sessions, the researcher was actively involved in note-taking and observation. With participants' permission, the researcher occasionally posed follow-up or clarifying questions to deepen understanding of emerging themes. This dual engagement ensured comprehensive data capture and enhanced contextual interpretation.

iii. Minimization of Researcher Bias:

The collaborative moderation approach minimized the potential influence of researcher bias by separating the roles of facilitation and observation. This arrangement enabled participants to express themselves freely and authentically, thereby preserving the integrity of their perspectives and ensuring balanced data collection.

iv. Accurate and Detailed Documentation:

All focus group discussions and interviews were audio-recorded with participants' informed consent. The recordings were later transcribed verbatim to maintain accuracy and completeness. This systematic documentation allowed for careful cross-referencing during analysis, enhancing the reliability and confirmability of the findings.

Through these combined measures, the study ensured that the data collected were credible, trustworthy, and truly representative of the participants' experiences regarding access to and utilization of child health information for disease management.

3.9.3 Triangulation of Methods

Triangulation refers to the use of multiple data sources, perspectives, and methods to corroborate research findings and enhance the validity and credibility of a study (Golafshani, 2003). In this research, methodological triangulation was employed by integrating several complementary data collection approaches to obtain a comprehensive understanding of the phenomenon under investigation.

a) Document Review:

The document review included analysis of the Ministry of Health's Child Health Policy (2019), KCCA Health Education and Promotion Annual Report (2023), Kawaala Health Centre Annual Performance Reports. These documents provided contextual understanding of information dissemination mechanisms, health promotion strategies and baseline information

that informed the interpretation of primary data. Below is an example of the vaccination and immunization poster.

Figure 4: Vaccination and immunization poster.



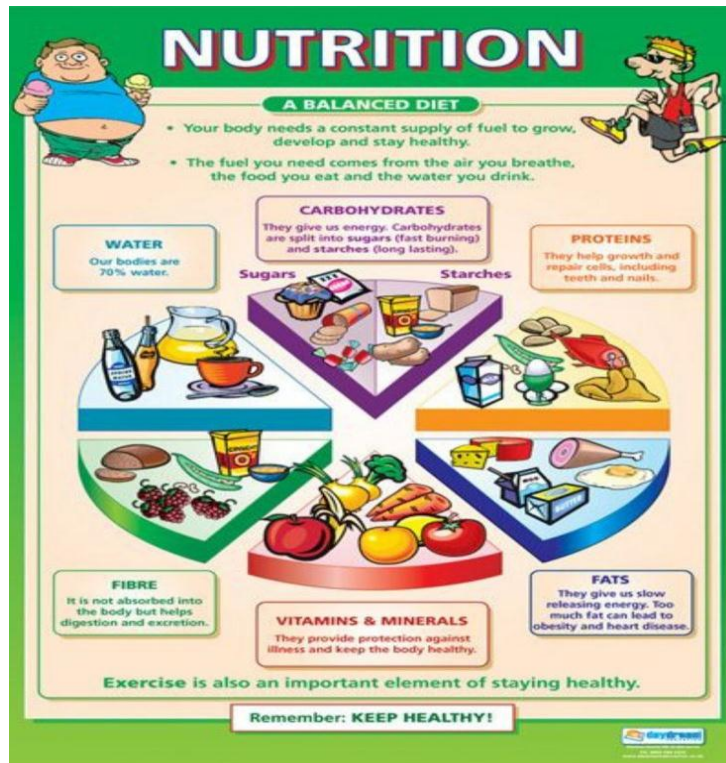
Source: Field Data (2024)

Figure 5: Malaria Prevention Poster



Source: Field Data (2024)

Figure 5: Nutrition Education Chart



Source: Field Data (2024)

b) In-Depth Interviews:

Interviews were conducted with both community health workers and medical personnel to gather expert opinions on strategies used for disseminating child health information and the challenges encountered in service delivery. These interviews provided detailed, experience-based insights into institutional practices and operational realities.

c) Focus Group Discussions (FGDs):

Mothers of children under five years of age participated in focus group discussions aimed at exploring their experiences, attitudes, and practices concerning access to and utilization of child health information. The discussions facilitated the identification of common themes, perceptions, and community-level dynamics.

Through this triangulated approach, data were cross-verified and validated across multiple sources and methods, thereby enhancing the reliability, depth, and robustness of the findings. Furthermore, during the data analysis phase, peer validation was sought by engaging experienced researchers and colleagues to review and cross-analyze the emerging data. This process ensured the consistency, accuracy, and objectivity of the identified themes, minimizing the risk of researcher bias and strengthening the overall trustworthiness and credibility of the study's conclusions.

3.10 Ethical Considerations

Ethical considerations refer to the principles and standards that guide responsible conduct in research in order to protect participants from harm and ensure the integrity of the study. In this study, ethical principles were strictly observed to safeguard the rights, privacy, and dignity of all participants throughout the research process.

Confidentiality

Confidentiality of participants' information was ensured at all stages of the study. Data collected from respondents were treated as private and were used strictly for academic purposes. All audio recordings, transcripts, and field notes were securely stored in password-protected files accessible only to the researcher and the academic supervisors. No information that could directly identify participants was shared with third parties.

Informed Consent

Informed consent was obtained from all participants prior to data collection. Participants were clearly informed about the purpose of the study, the nature of their involvement, the procedures to be followed, and the expected duration of participation. They were also informed of their right to decline participation or withdraw from the study at any stage without any negative consequences. Consent was obtained voluntarily after participant's demonstrated understanding of the study.

Anonymity

To protect participants' identities, no real names were used during data collection, analysis, or reporting. Instead, codes and pseudonyms were assigned to all participants. This ensured that individual responses could not be traced back to specific persons, thereby enhancing participant protection and encouraging openness during discussions.

By adhering to these ethical principles, the study upheld research integrity, minimized potential risks to participants, and fostered a trusting environment that enabled the collection of credible and authentic data.

3.11 Data Presentation and Analysis

Data analysis refers to the systematic process of organizing, interpreting, and making meaning from collected data. In this study, qualitative data analysis was guided by the six-step model proposed by Creswell (2014), which is widely used in qualitative research for its clarity and rigor. The steps include: (i) organizing and preparing data for analysis, (ii) reading through all data, (iii) coding the data, (iv) developing categories and themes, (v) describing the themes, and (vi) interpreting the findings.

Following data collection, all interviews and focus group discussions were transcribed verbatim. The researcher repeatedly read through the transcripts to gain familiarity with the data and develop an overall understanding of participants' experiences and perspectives. The data were then broken down into smaller, meaningful units and coded using descriptive labels that reflected the content of participants' responses, such as access to child health information, utilization practices, barriers to information use, and strategies for improvement.

Similar codes were grouped into broader categories based on shared meanings. These categories included access, utilization, dissemination, barriers, awareness, and contextual factors. The categories were then synthesized into major themes and sub-themes aligned with the study objectives, such as sources of child health information, utilization of information for disease management, challenges affecting access and utilization, and strategies for improving information use among mothers of children under five.

The analyzed data were presented thematically and organized according to the research objectives. A thematic analysis approach was adopted because it is suitable for exploring experiences, perceptions, and practices, and it allows for systematic identification of patterns across qualitative datasets (Kiger & Varpio, 2020). Findings were presented in a narrative form and supported by selected verbatim quotations from participants to enhance credibility and ensure that interpretations remained grounded in the data.

This approach enabled a clear, coherent, and objective presentation of findings, facilitating meaningful interpretation and linkage between the study objectives, the data collected, and the conclusions drawn.

3.11 Data Presentation and Analysis

Data analysis involves bringing order, structure, and meaning to the information collected during a study (Mugenda & Mugenda, 2003). In this research, the researcher adopted the six-step model proposed by Creswell (2014), which provides a systematic approach to handling qualitative data: (1) organizing and preparing data for analysis, (2) reading all the data, (3) coding the data, (4) generating categories and themes, (5) describing the themes, and (6) interpreting the findings. This model was selected because it offers clear, practical guidelines for managing and analyzing qualitative information.

Following data collection, all recorded interviews were transcribed verbatim. The researcher carefully read through the transcripts to familiarize herself with the content and gain a holistic understanding of the data. The data were then segmented into shorter, meaningful units, each labeled with descriptive headings such as *“benefits of utilizing health information among children under five,” “barriers to access and utilization of health information,”* and *“strategies to improve access and dissemination of health information.”*

Next, similar units were grouped into broader categories reflecting shared meaning, including *“accessibility,” “utilization,” “dissemination,” “time,” “age,” “barriers,”* and *“awareness.”* These categories were further organized into themes and sub-themes, for example,

“aims of health information for disease management” and “benefits of health information access and utilization among mothers of under-five children.”

The presentation of the analyzed data was guided by the research objectives, with thematic analysis applied to systematically identify, analyze, and report patterns across the dataset (Damayanthi, 2019; Dawadi, 2020). Thematic analysis is particularly suitable for studies aiming to explore experiences, thoughts, and behaviors, as it allows researchers to generate meaningful insights from qualitative data (Kiger & Varpio, 2020).

Finally, the findings were compiled and presented in a narrative format, supported by verbatim quotes, photographs, and relevant images. This approach not only illustrated participants’ perspectives vividly but also ensured that the results remained closely linked to the raw data.

3.12 Limitations of the study

The researcher encountered several limitations during the study, as explained below:

Limited Generalizability: The study was conducted at a specific location Kawaala Health Centre IV in Kampala District and focused on a particular population, including mothers of children under five, health workers, medical doctors, nurses and midwives and VHTs. Consequently, the findings may not be directly applicable to other settings with different demographics, cultural contexts, or healthcare systems, limiting the generalizability of the results.

Expectation of Financial Compensation: Some participants initially expected financial incentives before agreeing to participate. The researcher clarified that the study was conducted for academic purposes, after which the participants cooperated voluntarily.

Accessibility of Key Informants: Several key informants were difficult to reach due to their frequent engagement in meetings and other professional commitments. This resulted in delays and required additional time to schedule and complete data collection.

Language Barrier: The researcher was not fluent in Luganda, the primary language spoken by many informants. To address this challenge, a research assistant fluent in Luganda was appointed to interpret responses accurately, ensuring that language differences did not compromise data quality.

The study specifically targeted mothers of children under five years, health workers, midwives, nurses, medical doctors and community health workers (VHTs) within the selected health centre. Other stakeholders, such as fathers, policymakers, or representatives from non-governmental organizations (NGOs), were not included. This narrow focus delimits the range of perspectives and insights gathered, potentially overlooking valuable contributions from other parties involved in child health information dissemination. By concentrating on these primary actors, the study provides an in-depth understanding of maternal experiences and frontline health service delivery, while acknowledging that a broader inclusion of stakeholders could offer additional contextual and policy-level insights.

3.13 Delimitations

The study employed several strategies such as triangulation, careful participant selection, and the use of research assistants to mitigate potential impacts, thereby ensuring that the findings remained credible and meaningful. For instance, on:

3.13.1 Limited Generalizability

Future studies could adopt a multi-site design, including different health centres across urban and rural settings, to enhance the representativeness of the findings. Additionally, incorporating diverse demographic groups would improve the transferability of results to other populations.

3.13.2 Expectation of Financial Compensation

Researchers can provide non-monetary incentives, such as refreshments or small tokens of appreciation, while clearly communicating the academic purpose of the study. Early

engagement and transparent explanations can help manage participants' expectations and encourage voluntary participation.

3.13.3 Accessibility of Key Informants

Scheduling interviews well in advance and using flexible data collection methods (e.g., phone or online interviews) can reduce delays. Maintaining a contact schedule and reminders ensures that key informants can participate without disrupting their professional responsibilities.

3.13.4 Language Barrier

Recruiting research assistants fluent in local languages ensures accurate interpretation of responses. Translating instruments and consent forms into the local language before data collection can also minimize misunderstandings and improve participant engagement.

3.13.5 Narrow Scope of Participants

Future research could include additional stakeholders, such as fathers, policymakers, and NGO representatives, to capture a more comprehensive view of child health information dissemination. Using a mixed-methods approach could integrate both community-level experiences and policy-level perspectives for richer insights.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF THE FINDINGS

4.1 Introduction

This chapter presents the findings of the study, which investigated how mothers of children under five access and utilize child health information for disease management at Kawaala Health Centre IV, Kampala District, Uganda. It provides a detailed account of the data collected, analyzed, and interpreted in alignment with the study objectives. Where appropriate, the findings are illustrated with direct quotations, verbatim responses, and descriptive field evidence to offer richer insights into the experiences, perceptions, and practices of the respondents.

The findings presented in the first sections were based on the socio-demographic characteristics of the mothers of the under-fives. Understanding these factors is crucial for contextualizing how different categories of mothers perceive, access, and utilizes child health information.

The study also observed several information, Education and Communication (IEC) materials used to disseminate child health information at Kawaala Health Centre. These included posters on immunization schedules, nutrition, exclusive breastfeeding, malaria prevention and hygiene displayed on notice boards and waiting areas. Registers of child immunization and antenatal attendance were reviewed to assess information flow and utilization. Additionally, fliers and brochures produced by KCCA and Ministry of Health were available at the reception and child welfare clinic providing guidelines on feeding practice, sanitation and growth monitoring.

4.2 Socio-Demographic Characteristics of the Mothers

This section presents a descriptive overview of the socio-demographic characteristics of the mothers who participated in the study. Key characteristics examined include age, marital

status, level of education, and occupation. The mothers were engaged through focus group discussions (FGDs), with each group comprising between six and twelve participants. This approach facilitated in-depth exploration of experiences and perspectives while allowing for interaction and discussion among participants, thereby enriching the quality of the data collected.

4.2.1 Age of the Mothers

The ages of the mothers were grouped into four major categories to examine how maternal age might influence access to and utilization of child health information for disease management. Participants’ ages ranged from 19 to 50 years, with the majority falling between 25 and 39 years. This age group represents mothers in their prime reproductive years, which corresponds with the period of highest engagement with maternal and child health services. Understanding this distribution is important for interpreting variations in health information access and utilization across different age cohorts. Table 2 below presents a summary of the mothers’ age distribution across the focus groups:

Table 2: Description of Mothers According to Age Category and Focus Groups

Age Category (Years)	Number of FGDs	Estimated Number of Participants
19 – 24	1	6
25 – 39	1	7
40 – 49	1	7
Total	3 FGDs	20 mothers

Source: Field Data, 2024

As shown in the table above, the study engaged mothers from a range of age categories, with most of them (14 mothers) between the ages of 25 – 49 years. This reflects the typical demographic profile of mothers utilizing maternal and child health services for disease management at Kawaala Health Centre IV. No mothers below 18 years were reported in the study.

4.2.2 Marital Status of the Mothers

Marital status emerged as a significant contextual factor in this study, particularly because, in many African settings, child-rearing is closely linked to the institution of marriage. Among the mothers who participated in the focus group discussions, the majority (15) were married or living with a partner. The discussions revealed that these women frequently shared parenting responsibilities and exchanged health-related information with their spouses. Several married participants highlighted how their husbands' support, whether through financial assistance, access to health information, or emotional encouragement played a crucial role in enabling timely decisions regarding their children's health.

A smaller number of informants (5) were divorced, separated, widowed, or single. These mothers reported distinct challenges, including limited support systems and the burden of independently navigating child health services and information. One single mother in her late twenties described how she relied on other women in her neighborhood or at the health center for advice on managing her child's illnesses.

The marital status of informants thus provided valuable insight into the role of support structures in accessing child health information. Married women often benefited from "shared knowledge" and collaborative decision-making with their spouses, whereas single, divorced, or separated mothers relied more heavily on informal community networks to obtain guidance and support.

4.2.3 Level of Education

The mothers' educational attainment varied, although the majority (16) had completed at least primary education. Educational background played a significant role in shaping how participants accessed, interpreted, and utilized child health information for disease management. Mothers with formal education reported greater confidence in asking questions during health center visits, interpreting health posters, and following treatment instructions. For instance, one mother with a secondary-level education noted that her schooling helped her distinguish between reliable and unreliable health information.

In contrast, participants with little or no formal education (4) tended to rely more on verbal communication, peer discussions, and guidance from community health workers to understand their children's health needs. Despite these differences, all mothers, regardless of educational level, actively sought health information, primarily through interpersonal interactions and community networks. Proficiency in Luganda, the local language, enabled even less-educated participants to fully engage in focus group discussions and comprehend the health messages conveyed.

This finding highlights that while formal education enhances health literacy and information interpretation, effective community-based health communication, especially when delivered in local languages can bridge literacy gaps and ensure inclusive maternal participation in child health practices.

4.2.4 Occupation of the Mothers

The livelihoods of the mothers were predominantly based in informal trade, particularly the sale of agricultural produce such as maize, bananas (matooke), tomatoes, and leafy vegetables. Many participants described the marketplace not only as an economic space but also as a vibrant hub for social interaction and the exchange of information. Several mothers reported learning about child health issues including nutrition, immunization schedules, and home remedies for common childhood illnesses through conversations with fellow traders or customers.

The study found that occupational roles significantly influenced mothers' time availability, mobility, and exposure to health information. For instance, mothers who worked near health centers or regularly interacted with vendors of health-related products in the market had more opportunities to encounter new knowledge on child health. However, limited income from these informal occupations sometimes restricted access to timely health services, particularly when transport or medication costs were involved.

This occupational context offers valuable insights into how economic realities shape mothers' decision-making and access to health resources. In addition, it underscores the potential of utilizing market settings as strategic points for disseminating child health information for disease management through outreach initiatives and interpersonal communication. However, before the presentation of these findings, it was important to investigate the Child Health information needs of mothers of children below five years. These are presented below

4.3 Child Health Information Needs of Mothers of Children below Five Years at KHC IV

This section presents the findings on the specific types of child health information that mothers of under-five children require. The presentation begins with an explanation of the overall pattern of information needs before discussing each theme and illustrating them with labelled excerpts from the Focus Group Discussions (FGDs). The needs expressed were shaped by common childhood illnesses, challenges in accessing reliable information, and the quality of communication between health workers and caregivers.

Mothers consistently emphasized that although some information was available at the facility, poor dissemination, unclear communication, and limited engagement reduced its usefulness. Their information needs clustered around several key themes.

4.3.1 Information on Malaria Prevention and Treatment

Before presenting the quotes, it is important to note that malaria emerged as the most frequently mentioned concern. Mothers highlighted the need for clear guidance on early symptom recognition, effective home management, and appropriate health-seeking behavior.

One mother shared her concern:

- **Mother1:** *“We want to know how to protect our children from malaria and what to do when they get fever in the night.”*

This quote reflects the anxiety mothers feel about nighttime fevers and the limited support available after working hours. Another mother added:

- **Mother3:** *“Sometimes the child gets hot suddenly, and you are not sure if it is malaria or something else. We need to be taught the difference.”*

This indicates a need for simplified, practical guidance on identifying malaria symptoms early and responding safely.

4.3.2 Child Care and Immunization

Mothers expressed a strong desire for more structured and predictable immunization information. Many indicated that inadequate communication of immunization dates and expectations often led to missed appointments and strained interactions with staff.

- **Mother4:** *“Sometimes we don’t know the next date for immunization, and if you miss it, they shout at you at the facility.”*

This quote highlights both a communication gap and the emotional impact of unclear instructions. Another mother affirmed:

- **Mother6:** *“If they wrote for us clearly or reminded us, we would not miss the days.”*

These findings suggest a need to strengthen communication strategies, especially for first-time mothers.

4.3.3 Information on Cancer Prevention and Chronic Illnesses

Although mentioned less frequently, some mothers asked for information related to childhood cancers or chronic symptoms mainly due to fear, personal experiences, or unexplained symptoms.

- **Mother 9:** *“When a child has strange swelling or keeps falling sick, we get scared. We want to know if it can be cancer or something serious.”*

This shows the need for early-warning information and reassurance on uncommon but worrying conditions.

4.3.4 Information on Diarrhea Management

Mothers expressed concern about diarrhea, especially during the rainy seasons when sanitation challenges escalate.

- **Mother 7:** *“During rain time, children get diarrhea a lot. We want to know the right treatment and when to rush to the hospital.”*

This underscores the need for seasonal and context-specific health information.

4.3.5 Information on Nutrition and Family Planning

A small but important group of mothers raised concerns related to child feeding and managing multiple young children.

- **Mother 10:** *“Sometimes food is there but you don’t know the right way to combine it for the child.”*
- **Mother 12:** *“We also need to know how to plan for our children so that we can care well for the ones we have.”*

These needs relate both to nutritional literacy and maternal reproductive health, which influence child well-being.

4.4 Presentation of findings as per research objectives

The presentation of findings in this study is structured according to the research objectives, as outlined below:

- i. To examine the sources through which mothers of under-five children access child health information at Kawaala Health Centre IV.
- ii. To examine the utilization of child health information in managing common childhood diseases.
- iii. To investigate the role of health workers and health education programs in facilitating child health information dissemination.
- iv. To determine the challenges affecting access and utilization of child health information by mothers of under-five children.
- v. To recommend strategies to improve access and utilization of child health information for disease management among mothers of under-five children.

The following sections present the findings aligned with these objectives.

4.4.1 Sources through which Mothers of Under-Five Children Access Child Health Information

Mothers access child health information through multiple sources including health workers, VHTs, printed materials, peers, digital platforms, and community networks. The findings below summarize these sources with labeled quotes and contextual explanations.

Health Workers at the Facility

Health workers including nurses, midwives, and medical doctors were frequently cited as the most trusted and accessible source of child health information. During immunization and growth monitoring sessions, health workers provide general care and counseling to mothers.

“Some mothers of the under-fives do not know that conceiving three months after the birth can affect the steady growth of the new baby. So, when they come for immunization and we see that the baby is malnourished, we provide counseling to change this situation.” (Nurse1)

Focus group discussions (FGDs) confirmed that mothers felt confident following advice directly from professionals:

“When I bring my child for immunization or treatment, the nurse talks to me about feeding, washing hands, and other things. She explains well and even demonstrates how to give medicine.” (Mother1)

“The nurses even tell us when to come back and what signs to look for in sick children. They are patient and speak our language.” (Mother2)

Hence, interpersonal communication with health workers builds trust and provides opportunities for mothers to ask questions and clarify doubts.

Health Education / Health Talks

Mothers highlighted the importance of health talks conducted at Kawaala Health Centre IV, particularly on topics such as nutrition, danger signs, exclusive breastfeeding, and child development.

“The facility provides health talks every Wednesday, useful for both first-time and experienced mothers. We did not know that exclusive breastfeeding boosts immunity and proper growth.” (Mother 3)

Structured health talks offer reliable, repeated information, reinforcing good child care practices.

Community Health Workers / Village Health Teams (VHTs)

VHTs provide door-to-door education, home counseling, and community mobilization. Mothers appreciated their support, especially when attending the health facility was challenging.

“Our VHT leader visits our homes and provides the information we would get from the hospital. She listens to our challenges and counsels us.” (Mother 4)

“The VHT came to our home and showed me how to keep water clean and give vitamin A. They even helped when my baby had a fever.” (Mother 5)

VHTs also distribute practical items such as mosquito nets and health booklets:

“The VHT teams gave us mosquito nets and explained why sleeping under them helps prevent malaria in children.” (Mother 6)

VHTs extend health education into the community, reduce burden on health facilities, and improve early disease prevention.

Printed Materials (Posters, Flyers, Pamphlets)

The facility provides free reading materials in both Luganda and English, allowing mothers to reinforce knowledge from health talks.

“We have many posters and take-home leaflets on growth monitoring and ORS/feeding. Mothers who can read take them free of charge.” (Doctor1)

“Sometimes posters use pictures and Luganda, which makes them understandable even to those who cannot read.” (Mother 7)

Visual and bilingual materials enhance comprehension and retention of health information.

Peer Mothers / Mother Support Groups

Mother support groups provide emotional support and experiential knowledge.

“I joined this group on recommendation from a friend. Most of the time, our families do not offer such support. We have benefited a lot and became confident.” (Mother 8)

Peer networks reinforce formal health messages and build maternal self-esteem.

Friends, Family, and Neighbors

Informal social networks facilitate practical advice sharing:

“When my baby had diarrhea, my neighbor told me to give ORS and go to the clinic. She had the same problem before.” (Mother 9)

Community-based advice complements formal health sources.

Mass Media and Digital Channels

Radios: Widely accessed, even by mothers with limited literacy.

“CBS radio teaches us about child sickness. Doctors explain in Luganda, so it is easy to understand.” (Mother10)

Television: Useful for general awareness and immunization campaigns.

WhatsApp Groups: Urban mothers use WhatsApp to share advice and clinic announcements.

“We use WhatsApp for sharing advice and updates from clinics.” (Mother11)

Newspapers: Less commonly used due to literacy and cost barriers but remain informative when accessible.

Mobile Phones / SMS Reminders: Health workers send vaccination reminders and health tips.

“Midwives ask us to register our numbers and send reminders for the next visit.” (Mother12)

Digital channels complement traditional sources, particularly for urban, literate mothers.

Local Leaders / Community Meetings

Local council (LC) leaders share health information during community gatherings, mobilizing mothers for immunization and other health initiatives.

“The Local leaders share health information at community meetings to encourage us to take children for immunization.” (Mother13)

Community-based dissemination ensures wider reach and encourages collective action.

4.4.2 Utilization of Child Health Information in Managing Common Childhood Diseases

The utilization of health information by mothers was analyzed in several key areas:

4.3.2.1 Acting Positively on Shared Health Information

Educated mothers were more likely to apply information:

“When the nurse explains child health information in Luganda and gives examples, we remember and do what she says for our babies.” (Mother 1)

Mothers with limited literacy relied on peers or VHTs:

“For us, we don’t know how to read, so we rely on our peers or VHTs for effective information sharing.” (Mother 2)

Education and literacy influence utilization; language-appropriate communication is crucial.

4.3.2.2 Improving Nutrition and Growth Monitoring

Mothers reported applying nutrition guidance to enhance child immunity:

“We use information on balanced diets and breastfeeding to prepare nutritious meals like porridge with groundnuts and milk” (Mother 3)

4.3.2.3 Enhancing Immunization Uptake

Accurate health information helped overcome myths:

“Accurate health information educates parents on the importance and timing of immunization and helps address myths and fears surrounding vaccines.” (Midwife1)

4.3.2.4 Promoting Hygiene and Sanitation Practices

“A mother who learns the importance of washing hands before feeding reduces chances of infections.” (Nurse1)

4.3.2.5 Supporting Child Development and Well-being

“We were told to play with our children and read small books to promote early reading culture and cognitive development.” (Mother 5)

4.3.2.6 Strengthening Home-Based Care and First Aid

“A mother who knows how to manage mild diarrhea with ORS can prevent dehydration. We treat the children together.” (Nurse 2)

4.3.2.7 Empowering Caregivers and Communities

“The information we get encourages peer learning and community health dialogues, creating a supportive environment.” (Mother 6)

4.3.3 Role of health workers and health education programs in facilitating child health information dissemination

Health workers and health education programs are central to ensuring that accurate, timely, and culturally appropriate child health information reaches mothers and other caregivers. This section presents findings from in-depth interviews with health workers and focus group discussions (FGDs) with mothers of under-fives at Kawaala Health Centre IV. The findings highlight the multifaceted roles of health workers and structured health education initiatives in promoting child health knowledge, behavior, and practices.

4.3.3.1 Health Workers as Key Intermediaries of Health Information

Health workers, including nurses, midwives, community health workers (CHWs), and health educators, act as trusted intermediaries between formal health systems and the community. They translate medical knowledge into understandable guidance, provide personalized counseling, and bridge the gap between health services and caregivers.

Midwife1: *“We educate mothers and caregivers on topics such as child nutrition, immunization schedules, hygiene, disease prevention, and early recognition of childhood illnesses. Health*

workers provide personalized counseling during antenatal and postnatal visits, encouraging positive health-seeking behavior and adherence to medical advice.”

Nurse1: *“We provide accurate health information to mothers related to counseling and guidance. We normally communicate health information in local languages and culturally appropriate ways, which increases understanding and acceptance.”*

Health workers serve as vital intermediaries by ensuring that essential child health information is comprehensible, culturally sensitive, and actionable. Their guidance not only improves mothers’ understanding but also builds trust and encourages the adoption of recommended health practices.

4.3.3.2 Health Education Programs as Tools for Knowledge Empowerment

Health education programs provide structured platforms for systematically disseminating information to caregivers and the broader community. These programs utilize multiple channels, including radio, community outreaches, village health meetings, posters, and mobile messaging, to reach larger audiences and foster long-term behavior change.

Medical Doctor1: *“We offer health education sessions in schools and community centers to foster long-term behavioral change by improving knowledge among young mothers and adolescents.”*

Nurse2: *“Health workers offer radio broadcasts, posters, and mobile messaging to reach larger audiences, ensuring consistent and wide-reaching information flow.”*

Health education programs empower mothers with knowledge on child nutrition, immunization, hygiene, and disease prevention. By providing structured and systematic information dissemination, these programs enable informed decision-making and foster positive health behaviors in the community.

4.3.3.3 Capacity Building and Continuous Training of Health Workers

Health workers undergo regular training and continuous professional development to ensure that they remain competent, up-to-date with current guidelines, and able to communicate effectively with caregivers.

Midwife2: *“The in-charge takes us for training, which enhances our ability to communicate effectively, dispel myths, and correct misinformation regarding child health practices.”*

Nurse3: *“We undergo training and become skilled in health matters, which enables us to tailor health information messages that meet specific needs and literacy levels of mothers and other caregivers.”*

Continuous capacity building equips health workers with updated knowledge, enhances communication skills, and strengthens their confidence in guiding mothers, ensuring that health information is accurate, practical, and culturally appropriate.

4.3.3.4 Promoting Behavior Change and Community Participation

Health workers facilitate participatory learning through interactive sessions, demonstrations, and mother support groups, encouraging mothers to adopt positive child health behaviors. These platforms also promote peer learning and community engagement.

Mother 1: *“The health workers organize interactive sessions and demonstrations where we acquire new knowledge and skills. For instance, we have learned to prepare nutritious meals and are supported by mother support groups to improve our families’ welfare.”*

Interactive health education activities and peer support mechanisms empower mothers to actively apply child health knowledge. Participation in such programs strengthens community networks, promotes collective health practices, and enhances child health outcomes.

4.3.3.5 Monitoring and Feedback

Health workers also play a monitoring role by collecting feedback on how child health messages are received and applied within the community. This feedback helps refine communication strategies and identify persistent barriers.

Midwife 3: *“We play a role in monitoring and feedback. This helps health authorities refine communication strategies and address persistent barriers to information access and utilization.”*

Monitoring and feedback mechanisms enable continuous improvement in health communication strategies, ensuring that information is not only delivered but also understood, retained, and effectively applied by mothers.

4.3.4 Health Information Materials Observed at Kawaala Health Centre IV

During the fieldwork, several Information, Education, and Communication (IEC) materials were observed at Kawaala Health Centre IV. These materials are designed to disseminate child health messages to mothers of under-five children and other community members attending the facility. The materials were strategically displayed in notice boards, waiting areas, consultation rooms, and corridors to reach caregivers effectively. They included posters, charts, fliers, brochures, and registers, each serving a unique role in promoting child health information and disease prevention.

4.3.4.1 Posters and Charts

The posters and charts observed at the facility were visually appealing, often including pictorial illustrations that enabled even mothers with low literacy levels to understand the key messages.

Table 3: Summarizes the main posters and charts observed

Type of Poster/Chart	Key Message/Content	Location Displayed	Target Audience	Observed Effect/Usage
Immunization Schedule Poster	National EPI timetable showing vaccines by age (BCG, DPT, Polio,	Child Welfare Clinic and	Mothers and caregivers	Referred to by mothers during immunization visits; health workers

	Measles)	Waiting Area		explained further
Nutrition Education Chart	Steps on preparing balanced meals, breastfeeding guidelines, and complementary feeding	Nutrition Corner and ANC Clinic	Mothers, caregivers	Used during health education sessions and counseling by nutritionist
Growth Monitoring Chart	Weight-for-age and height-for-age graphs	Child Welfare Clinic	Health workers, mothers	Mothers guided to interpret their child's weight and growth trends
Malaria Prevention Poster	Proper use of insecticide-treated nets, malaria symptoms	Entrance and waiting room	General community	Discussed during health talks on malaria prevention
Hand Washing Poster	Steps of proper handwashing with soap at critical times	Maternity and Child Health Section	Mothers, caregivers	Served as visual guide during hygiene demonstrations
Danger Signs in Pregnancy and Childhood Illness Poster	Illustrated signs for urgent referral (e.g., convulsions, fever, diarrhea, jaundice)	ANC room, Child Health Corner	Pregnant women, mothers	Used by health workers as counseling aids

Most posters were effective in communicating critical health information, although some were outdated (pre-2020) or torn. The facility lacked modern digital displays, such as rotating information boards or screens, which represents a gap in contemporary information dissemination methods.

4.3.4.2 Notice Boards

The facility maintained notice boards near the outpatient and maternity units, displaying weekly immunization schedules, monthly health talk topics (nutrition, hygiene, malaria prevention), outreach activities, and public alerts such as measles vaccination campaigns. Mothers were

observed reading these notices while waiting for services. The information was provided in both English and Luganda, enhancing comprehension among local caregivers.

Observation: Notice boards were well-structured, regularly updated, and contributed to mothers' awareness of upcoming health services and education sessions.

4.3.4.3 Registers and Record Books

Registers were maintained to document child health service provision and information dissemination activities.

Table 4: summarizes the key registers reviewed

Register Reviewed	Purpose/Content	Responsible Officer	Frequency of Update	Remarks
Child Immunization Register	Record of vaccines administered per child	Enrolled Nurse/Health Assistant	Daily	Up-to-date, high completeness (98%)
Growth Monitoring Register	Weight, height, age, and nutritional status	Nutritionist/Health Worker	Weekly	Used to track underweight and stunted children
Health Education Attendance Register	Record of mothers attending health talks	Health Educator	Weekly	Used to plan follow-up home visits; lacked disaggregated topic data
Outpatient Register	Record of children treated for malaria, diarrhea, cough, etc.	Clinical Officer	Daily	Used for Health Information Management System reporting
Antenatal Register	Health talks given to pregnant women on maternal and newborn care	Midwife	Daily	Integrated with HIV testing and PMTCT records

Registers provided reliable quantitative evidence of service delivery and education sessions. However, the health education register would benefit from disaggregated data on topics discussed to enhance planning and monitoring.

4.3.4.4 Fliers, Brochures, and Pamphlets

Several printed fliers and brochures were available at the reception. Key examples included:

- Child Immunization Card: Importance of completing all vaccine doses.
- Exclusive Breastfeeding – The First 6 Months Matter Most: Produced by the Ministry of Health.
- First Diarrhea – Wash Hands and Boil Drinking Water: Developed by the Ministry of Health.
- Nutrition for Under-Five Children: Outlining food groups and feeding schedules.

While fliers were free for mothers to take home, availability was limited. Mothers who used them often kept the materials as reminders for feeding and hygiene practices. The materials reinforced information shared during health talks and counseling sessions.

4.3.4.5 Summary of IEC Materials Observed

Category	Number Observed	Condition	Responsible Department
Posters	14	10 good, 4 faded	Health Promotion Office
Charts	6	All in good condition	Nutrition and Immunization Units
Notice Boards	2	Regularly updated	Health Educator
Registers	5	All functional	Health Staff
Fliers/Brochures	7 types	4 current, 3 outdated	KCCA and MoH

The IEC materials at Kawaala Health Centre IV were effective tools for communicating key child health information. Visual aids and localized content enhanced understanding among mothers with varying literacy levels. However, gaps existed in the form of outdated posters, limited digital information platforms, and insufficient take-home fliers. Strengthening IEC materials through regular updates, increased quantity, and the use of modern digital displays could further improve mothers' access to and utilization of child health information.

4.3.5 Challenges affecting access and utilization of child health information

Access to and utilization of child health information is critical for reducing child morbidity and mortality. However, several barriers limit mothers' ability to effectively obtain, understand, and apply this information. The following findings were identified through focus group discussions (FGDs) with mothers and in-depth interviews with health workers at Kawaala Health Centre IV.

4.3.5.1 Limited Access to Health Facilities and Personnel

Geographical and infrastructural challenges restrict some mothers from accessing health facilities and reliable information. Mothers reported that long distances and poor transport systems make it difficult to attend health education sessions or routine check-ups.

Mother1: *“Long distances to health centers and poor transport systems make it difficult for us mothers to attend health education sessions and regular routine check-ups. Kawaala Health Centre IV serves this community and others who cannot afford private clinic bills, but there are few health workers who complain of heavy workloads, limiting time for individualized counseling.”*

While mothers appreciate the services at Kawaala Health Centre IV, distance, inadequate transport, and high patient-to-health worker ratios limit their ability to receive personalized health education, reducing effective utilization of child health information.

4.3.5.2 Low Literacy and Health Literacy Levels

Limited literacy and poor comprehension of medical terminology hinder mothers' ability to understand written health messages. Health workers reported that mothers often struggle with printed materials or schedules, especially when presented in English.

Medical Doctor 1: *“In this community, we treat mothers who are unable to read information provided in posters, leaflets, or immunization schedules, especially when written in English.”*

Therefore, mothers who primarily speak local languages, such as Luganda, may miss critical health information if it is not appropriately translated, affecting their ability to act on health advice.

4.3.5.3 Socio-Cultural Beliefs and Practices

Cultural norms and traditional beliefs influence how mothers perceive and act on health information. Some communities rely on traditional healers or elders rather than formal health services. Gender norms also restrict women's autonomy in health decision-making for their children.

Midwife1: *“Some communities rely more on traditional healers or elders than on formal health systems for child health advice. Cultural misconceptions, such as myths about immunization or exclusive breastfeeding, can hinder adoption of recommended practices.”*

Nurse1: *“Gender norms also limit women's decision-making power regarding seeking care for their children.”*

Socio-cultural factors can discourage mothers from following evidence-based child health practices, creating barriers to effective disease prevention and management.

4.3.5.4 Economic Constraints

Poverty restricts mothers' ability to apply health information. Financial limitations affect access to nutritious foods, healthcare services, and communication tools such as mobile phones.

Mother 2: *“Even when we receive information, financial barriers may prevent us from implementing the advice. Sometimes we cannot purchase nutritious foods or access healthcare services. Not all mothers are enrolled in WhatsApp groups; some lack mobile phones or smart devices.”*

Economic hardship limits both physical access to health services and digital access to health information, affecting mothers' ability to implement preventive and curative measures.

4.3.5.5 Weak Community Engagement and Follow-Up

Mothers reported that health information dissemination is often one-way, with limited opportunities for participation or feedback. Lack of follow-up reduces support for applying health messages at home.

Mother3: *“Top-down communication ignores local knowledge and feedback. Lack of home visits or follow-up means we receive information but are not supported to apply it in daily practice.”*

Limited community engagement and follow-up hinder effective uptake of health messages, reducing the impact of health education initiatives.

4.3.5.6 Inadequate Communication and Information Delivery Methods

Technical language, inconsistent sessions, and irregular health talks affect comprehension and utilization of health information.

Mother4: *“Sometimes, when the nurses speak to us, we do not understand what they want us to learn. They use technical language which is complicated. Some health education sessions are irregular, resulting in inconsistent information flow.”*

The clarity, regularity, and accessibility of communication are crucial for mothers to understand and apply health messages effectively.

4.3.5.7 Misinformation and Conflicting Messages

In the digital age, mothers may receive conflicting information from informal sources, social media, or even different health programs. This can create confusion, reduce trust, and hinder proper health practices.

Nurse2: *“Rumors, myths, and social media misinformation can undermine trust in health services. Conflicting messages between different programs may confuse mothers.”*

Misinformation challenges the credibility and effectiveness of health education, highlighting the need for consistent, trusted messaging.

4.3.5 Proposed strategies to improve access and utilization of child health information for disease management among mothers of under-five children

This section presents strategies proposed by health workers and mothers of under-five children from FGD and in depth interviews to improve access and utilization of child health information for effective disease management. The strategies aim to address barriers identified in section 4.3.4 and leverage existing strengths within the health system and community.

4.3.5.1 Increasing the Number of Village Health Team (VHT) Members

Mothers consistently emphasized the need to increase the number of Village Health Team (VHT) members to enhance the frequency and reach of child health information dissemination. While VHTs are trusted and accessible, the existing number is insufficient to cover the entire catchment area effectively.

Mothers' perspective:

“The VHTs come once in a while, and sometimes they don't reach our area. If there were more of them, we would get help faster.” (FGD, mother of under-five, Kawaala Health Centre IV)

VHT perspective:

“We try our best, but we are few, and many mothers need information. If we had more team members and transport means like bicycles, we would reach more people.” (Interview with VHT male member, 34 years)

Increasing the number of VHTs, along with transport support, would expand the coverage of health education and counseling services, ensuring timely dissemination of information to all mothers.

4.3.5.2 Capacity Building and Continuous Training of VHTs

Both mothers and VHT members highlighted the importance of regular training and upskilling of VHTs. Training should focus on updated child health practices, effective communication

VHT perspective

“We need to be taught more about how to explain diseases in simple Luganda so that mothers really understand us.” (Female VHT, Kawaala)

Continuous capacity building strengthens VHTs’ ability to communicate health messages clearly, dispel myths, and address local health challenges effectively.

4.3.5.3 Increased Use of Mass Media

Radio was identified as a highly trusted and widely accessible medium, particularly among urban-poor and semi-literate mothers. Health talk shows, short skits, and Q&A segments on local stations such as CBS and Simba FM were considered impactful.

Mothers’ perspective

“When a doctor talks on the radio about feeding or immunization, we listen carefully because we know this is very useful information which helps us manage diseases in our babies and their growth. We need more of such scheduled health talks.” (FGD, Kawaala)

Broadcasting regular, scheduled health programs during peak listening times can significantly improve access to reliable child health information and encourage positive health behaviors.

4.3.5.4 Conducting Community-Based Research

Mothers and health workers recommended research approaches that directly engage the community to tailor health interventions to local realities, such as low literacy, vaccine misconceptions, and food insecurity.

Mothers’ perspective:

“Sometimes they tell us things we don’t relate to. If they asked what we really go through, then gave us advice, it would help more.” (FGD, Kawaala)

Health workers' suggestion: Periodic assessments and surveys in collaboration with KCCA and development partners to identify knowledge gaps, preferred communication channels, and barriers to applying child health information.

Community-based research ensures interventions are contextually relevant, enhancing the likelihood of behavior change and effective disease management.

4.3.5.5 Establishment of a Child Health Information Service Centre

Mothers and health workers proposed creating a dedicated child health information service centre at or near the health facility to serve as a central hub for information, counseling, and referrals.

Mothers' perspective:

“If there was a place we could go, ask about children’s illnesses, even pick leaflets or talk to a nurse, it would help us a lot.” (FGD, Kawaala)

Proposed features of the centre:

- A drop-in knowledge centre equipped with materials in local languages
- Venue for health talks and group counseling sessions
- Referral point for complicated child health issues
- SMS or WhatsApp-based query platform for tech-savvy mothers

Leveraging both face-to-face interactions and low-cost digital platforms can enhance access, comprehension, and timely utilization of child health information.

4.3.5.6 Empowering Mothers and Communities

Health information empowers mothers to make informed decisions, engage in peer learning, and participate in community health dialogues.

Encouraging community involvement and peer support networks strengthens collective efforts toward child health promotion, ensuring sustained adoption of recommended practices.

4.3.5.7 Strengthening Home-Based Care and First Aid

Mothers suggested initiatives that build skills for home-based care and first aid, enabling them to manage minor childhood illnesses safely at home.

Training mothers to recognize early signs of illness and provide appropriate care reduces the risk of disease progression and ensures timely professional intervention when needed.

4.3.5.8 Supporting Child Development and Well-Being

Health workers emphasized the importance of integrating information on early childhood stimulation, play, and emotional care to support holistic development. Awareness of mental health and psychosocial support enables mothers to nurture emotionally healthy and cognitively active children.

Beyond physical health, equipping mothers with knowledge on developmental and psychosocial aspects strengthens overall child well-being and resilience.

4.4 Discussion of findings

This chapter presents a critical discussion of the study findings, guided by the research objectives. The discussion links empirical results with relevant literature, highlighting implications for improving child health information access and utilization among mothers of under-five children at Kawaala Health Centre IV.

4.4.1 Objective 1: Sources through which mothers of under-five children access child health information

The study revealed that mothers access child health information through a combination of formal and informal channels, including health workers, health education sessions, Village Health Teams (VHTs), printed materials, peer networks, family members, and digital platforms such as radio, television, WhatsApp, and mobile reminders.

Health workers and health education sessions emerged as the primary and most trusted sources. This finding aligns with Nankumbi and Muliira (2015), who noted that direct interaction with health professionals enhances mothers' understanding and adoption of recommended child health practices. Similarly, Kasozi et al. (2021) emphasized that health workers are crucial for delivering accurate, credible information guiding daily child care decisions. Structured health education sessions provide mothers with practical learning and reinforcement of preventive practices (WHO, 2023).

VHTs played a complementary role by bridging the gap between the health facility and the community. Their proximity and trust within communities allow equitable access to health guidance, particularly for mothers who may not visit the health centre regularly. This corroborates Kok et al. (2020), who observed that community health workers enhance maternal and child health outcomes in low-resource settings.

Printed materials, such as posters, flyers, and brochures, were found to support visual learning and serve as reminders, particularly for low-literacy caregivers. Musoke et al. (2019) highlight that culturally appropriate visual aids strengthen health literacy and behavior change communication. Peer networks and family members were also important sources, confirming the role of social networks in health information dissemination (UNICEF, 2021; Kabali et al., 2020). However, informal sources carry risks of misinformation, emphasizing the need for continuous guidance from trained health personnel.

Digital and mass media channels, particularly radio, were highly valued for their reach and accessibility, supporting findings by the Ministry of Health (2021) and Adebayo and Omotosho (2022). These platforms provide opportunities for rapid, interactive dissemination but must be complemented with community-based education to ensure accuracy and cultural relevance (Lwoga & Sife, 2018).

Finally, involvement of local leaders and community meetings reinforces the importance of social and political structures in health communication (Ministry of Local Government, 2020). Overall, the findings indicate that mothers rely on a diverse, multi-channel approach, which enhances coverage but requires coordinated messaging to maintain consistency and reliability.

4.4.2 Objective 2: Utilization of child health information in managing common childhood diseases

The study found that mothers actively use child health information to manage and prevent diseases, demonstrating a multidimensional application encompassing nutrition, immunization, hygiene, home-based care, and child development.

Mothers utilized information for growth monitoring and nutritional practices, contributing to the prevention of malnutrition-related illnesses and promotion of optimal growth (WHO, 2023). Increased uptake of immunization services reflected awareness of vaccine schedules and benefits

(UNICEF, 2021). Knowledge on hygiene and sanitation enabled proper handwashing, safe water handling, and waste disposal, critical for controlling communicable diseases such as diarrhea and cholera (MoH, 2021).

Beyond physical health, child health information also supported early childhood stimulation, psychosocial support, and cognitive development, aligning with Kok et al. (2020), who argue that caregiver knowledge enhances both physical and mental well-being of children. Additionally, home-based care and first aid practices empowered mothers to manage minor illnesses promptly, reducing complications and unnecessary facility visits.

Community empowerment was another outcome, with mothers sharing knowledge, participating in peer groups, and engaging in local health initiatives, consistent with Kabali et al. (2020). This demonstrates that effective utilization of health information fosters both individual and community resilience in child health management.

4.4.3 Objective 3: Role of health workers and health education programs

Health workers act as key intermediaries, translating technical medical knowledge into practical guidance, providing personalized advice, and promoting preventive behaviors. This aligns with Nankumbi & Muliira (2015) and Kasozi et al. (2021), emphasizing the centrality of health personnel in guiding maternal practices.

Structured health education programs were effective in knowledge empowerment, providing interactive learning through demonstrations, participatory sessions, and question-and-answer forums (Musoke, Ndejjo, & Halage, 2019). Capacity building and continuous training ensured that health workers remained up-to-date, improving message quality, comprehension, and adoption (Kok et al., 2020).

Health education also promoted behavior change and community participation, encouraging mothers to adopt recommended practices and engage in peer groups and local health initiatives (UNICEF, 2021). Monitoring and feedback mechanisms further strengthened the relevance and cultural appropriateness of health messages (WHO, 2023).

Field observations of IEC materials, notice boards, registers, fliers, and brochures corroborated these findings, demonstrating that well-designed and regularly updated resources enhance

learning, retention, and practical application (Silali, 2016; UNICEF, 2023; Kankam, 2024). However, limitations such as outdated materials and lack of local language translation suggest areas for improvement (Nanyunja et al., 2022; Morrison, 2019).

4.4.4 Objective 4: Challenges affecting access and utilization of child health information

The study identified multiple interrelated barriers limiting mothers' access and utilization of health information:

1. Limited access to health facilities and personnel: Geographic distance and staff shortages hinder mothers from participating in health education sessions, confirming Nankumbi and Muliira (2015).
2. Low literacy and health literacy levels: Low comprehension affects the application of health messages, consistent with Musoke, Ndejjo, & Halage (2019).
3. Socio-cultural beliefs and practices: Reliance on traditional medicine and community norms can contradict formal guidance, highlighting the need for culturally sensitive interventions (Kabali, Nankumbi, & Ndugga, 2020).
4. Economic constraints: Limited financial resources restrict transport, nutritious food access, and media device ownership, echoing Kasozi, Namubiru, & Ochieng (2021).
5. Weak community engagement and follow-up: Inconsistent support from VHTs and local leaders reduces message retention (Kok et al., 2020).
6. Inadequate communication methods: Use of outdated materials, poor language translation, and non-interactive formats limit comprehension (Lwoga & Sife, 2018).

These barriers indicate that improving access and utilization requires multifaceted interventions, addressing structural, educational, cultural, and technological challenges.

4.4.5 Objective 5: Strategies to improve access and utilization of child health information

The study identified multifaceted strategies to improve access and utilization of child health information:

1. Increasing the number of VHTs and strengthening their capacity through regular training, ensuring broader household coverage and effective communication (Kok et al., 2020).
2. Enhanced use of mass media and digital platforms (radio, television, WhatsApp, SMS) to complement community-based interventions and reinforce key messages (MoH, 2021; Adebayo & Omotosho, 2022).
3. Community-based research to identify local health needs, barriers, and communication preferences, ensuring context-specific and culturally appropriate interventions (UNICEF, 2021).
4. Establishment of a Child Health Information Service Centre at health facilities or community hubs to centralize information, counseling, and referrals.
5. Empowerment of mothers and communities through support groups, peer learning, and participatory activities, fostering confidence, knowledge-sharing, and community ownership (Kabali, Nankumbi, & Ndugga, 2020).
6. Strengthening home-based care and first aid to enable timely management of minor illnesses and early recognition of complications.
7. Support for child development and well-being, integrating early stimulation, psychosocial support, and cognitive care into routine guidance (WHO, 2023).

These strategies reinforce that improving child health outcomes requires a coordinated approach combining human resources, infrastructure, communication, community engagement, and caregiver empowerment.

4.4.6 Chapter Summary

This discussion highlights those mothers of under-five children at Kawaala Health Centre IV access information through multiple formal and informal channels, but face barriers including low literacy, cultural beliefs, economic constraints, and limited resources. Health workers and structured health education programs are central in bridging these gaps by translating knowledge, fostering behavior change, and supporting community engagement. Proposed strategies, including increasing VHT numbers, leveraging mass media, creating information centres, and empowering mothers, provide a comprehensive framework for improving access and utilization of child health information. Effective implementation of these interventions has the potential to enhance disease management, child growth, and community resilience, contributing to better child health outcomes in urban Uganda.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of major findings, conclusions, and recommendations of the study and areas for further research. The aim of this study was to investigate how mothers of children under five access and utilize child health information for disease management at Kawaala Health Centre IV, and guided by the findings, recommend strategic interventions aimed at enhancing the provision, accessibility, and effective use of such information. The presentation of the summary, conclusions and recommendations was, guided by the research objectives reproduced below:

- i. To examine the sources through which mothers of under-five children access child health information at Kawaala Health Centre IV.
- ii. To examine the utilization of child health information in managing common childhood diseases.
- iii. To investigate the role of health workers and health education programs in facilitating child health information dissemination.
- iv. To determine the challenges affecting access and utilization of child health information by mothers of under-five children.
- v. To recommend strategies to improve access and utilization of child health information for disease management among mothers of under-five children.

5.2 Summary of Findings

5.2.1 Sources through which mothers of under-five children access child health information

Objective one examined the sources through which mothers of under-five children access child health information at Kawaala Health Centre IV. A summary of these sources include: Health workers at the facility, Health education/health talks at Kawaala Health Centre IV, Community Health Workers / Village Health Teams (VHTs), printed materials such as posters, flyers, and pamphlets, Peer mothers / mother support groups, friends, family, and neighbors, Radios (Radio sets), newspapers, television sets, WhatsApp groups, Local leaders / community meetings (LC leaders), and mobile phones / SMS reminders.

5.2.2 Utilization of child health information in managing common childhood diseases

Acting positively on shared child health information, improving nutrition and growth monitoring, improving nutrition and growth monitoring, enhancing immunization uptake, promoting hygiene and sanitation practices, supporting child development and well-being, strengthening home-based care and first aid, empowering caregivers and communities.

5.2.3 The role health workers and health education programs

Objective four of this study investigated the role of Health workers and health education programs in facilitating child health information dissemination. The summary of these findings include: health workers as key intermediaries of Health information, health education programs as tools for knowledge empowerment, capacity building and continuous training, promoting behavior change and community participation, monitoring and feedback.

5.2.4 Challenges affecting access and utilization of child health information

Objective three of this research identified the barriers/challenges faced in disseminating child health information to the mothers. The major barriers/challenges child health information access and utilisation included: limited access to health facilities and personnel, low literacy and health literacy levels, socio-cultural beliefs and practices, economic constraints, weak community engagement and follow-up, and inadequate communication

5.2.5 Proposed strategies to improve access and utilization of child health information for disease management among mothers of under-five children

Objective five sought strategies to improve access and utilization of child health information for disease management among mothers of under-five children. The summary of the proposed strategies by both the mothers and Health Workers include: increasing the number of VHTs, Capacity building and Continuous training of VHTs, increased use of Mass Media, conducting Community-Based Research, establishment of a Child Health Information Service Centre, empowering mothers and communities, strengthening Home-based care and first aid, supporting child development and well-being.

5.3 Conclusions

This study examined how mothers of children under five years at Kawaala Health Centre IV access, utilize, and respond to child health information for the management of common childhood diseases. Grounded in the Basic Dignity of Human Life Theory and the Human Well-Being framework, the study conceptualized access to health information as a critical determinant of child health outcomes and maternal empowerment. Data were collected using mixed qualitative methods, including interviews with mothers, focus group discussions with Village Health Teams (VHTs), and field observations of health education materials, supplemented by secondary literature review. The findings indicate that child health information dissemination is multidimensional, influenced by formal and informal sources, community engagement, socio-cultural contexts, and communication strategies.

5.3.1 Sources of child health information

Mothers accessed child health information through health workers, community outreaches, peer networks, media, and mobile platforms. Health workers and community-based initiatives were perceived as the most reliable and trusted sources due to their provision of personalized guidance and practical demonstrations. However, the reliance on informal sources and media suggests disparities in access, highlighting the need to harmonize formal and community channels to ensure clarity, consistency, and equity in health messaging.

5.3.2 Utilization of child health information

Mothers effectively used health information to prevent and manage common childhood diseases, including malaria, diarrhea, respiratory infections, and malnutrition. Application ranged from hygiene practices and timely immunization to early recognition of danger signs and prompt health-seeking behavior. Utilization was influenced by literacy, access to health personnel, and availability of credible sources, indicating that consistent exposure to structured health education improves mothers' confidence and ability to make informed caregiving decisions.

5.3.3 Role of health workers and health education programs

Health workers served as critical intermediaries between formal health systems and communities, translating medical knowledge into accessible, culturally appropriate guidance. Structured health education programs, including clinic sessions, outreach campaigns, radio discussions, and participatory demonstrations, empowered mothers with practical skills, reinforced preventive behaviors, and promoted peer learning. Continuous capacity building of health workers ensured delivery of updated, evidence-based information, strengthening community trust and adoption of healthy practices.

5.3.4 Challenges to access and utilization

Key challenges affecting access and utilization included geographic distance, limited health personnel, low literacy, socio-cultural beliefs, economic hardship, weak communication methods, and language barriers. These barriers underscore the necessity for culturally sensitive, inclusive, and community-centered strategies that enable mothers to comprehend and apply health information effectively.

5.3.5 Strategies to improve access and utilization

Effective strategies identified include strengthening community-based outreach, employing local languages and culturally sensitive communication, enhancing economic empowerment to facilitate access to media and technology, building the capacity of health workers, integrating ICT tools for information dissemination, and improving coordination between health facilities, community structures, and media outlets. Regular follow-up, peer support, and monitoring

mechanisms were also critical to reinforce adoption of health practices. Collectively, these strategies provide a holistic framework for increasing mothers' access to, understanding of, and ability to act on child health information, thereby improving disease management and child well-being.

5.3.6 Overall conclusion

In conclusion, the study demonstrates that access to reliable, culturally appropriate, and actionable child health information is central to reducing childhood morbidity and mortality. Mothers' ability to utilize this information is enhanced by trusted health workers, community engagement, and supportive communication strategies, while barriers such as low literacy, socio-cultural constraints, and limited resources must be addressed through coordinated, context-specific interventions. Strengthening both health systems and community structures is therefore essential for empowering mothers and improving child health outcomes in urban Ugandan settings.

5.4 Recommendations

5.4.1 The sources through which mothers of under-five children access child health information at Kawaala Health Centre IV

From the findings, it is recommended that Kawaala Health Centre IV and its partners strengthen and diversify the existing sources of child health information to ensure that mothers of under-five children receive accurate, timely, and accessible information through channels that best meet their needs. Below are the specific recommendations:

First, health workers should continue to serve as the primary and most trusted source of child health information, but their communication should be more structured and consistent. Regular health education sessions should be organized during antenatal clinics, immunization days, and child health weeks. These sessions should use participatory approaches such as demonstrations, storytelling, and group discussions to ensure that mothers fully understand and can apply the information provided.

Secondly, Kawaala Health Centre IV should strengthen the use of community-based information channels. Community health workers and village health teams should be empowered through training and facilitation to conduct home visits and community sensitizations. This would help bridge the information gap for mothers who cannot regularly visit the facility due to distance, work, or financial constraints.

Thirdly, the findings suggest that mass media particularly radio remains one of the most accessible and widely used sources of information among mothers. Therefore, Kawaala Health Centre IV should collaborate with local radio stations to air regular child health programs during peak listening hours, especially in the mornings and evenings. These programs should be delivered in local languages and should include interactive segments where mothers can call in or send questions for clarification.

Additionally, digital communication platforms such as WhatsApp and SMS messaging can be used to complement traditional sources of information. Kawaala Health Centre IV could create moderated WhatsApp groups for mothers to receive verified health messages, reminders for immunization, and updates on child health campaigns. This approach would also help counter misinformation circulating through informal social media platforms.

Furthermore, printed information materials such as posters, brochures, and flyers should be made more visually engaging and translated into local languages like Luganda, which is widely spoken in the area. This would make health messages more inclusive and easier to understand for mothers with low literacy levels.

Finally, collaboration between health workers, local leaders, schools, and religious institutions should be enhanced to promote a unified and consistent flow of child health information. Community leaders play an influential role in shaping attitudes and can be instrumental in mobilizing mothers to attend health talks and adopt healthy practices.

Improving the reach and effectiveness of child health information requires an integrated communication strategy that combines interpersonal communication, community engagement, and the use of both traditional and modern media. By building on trusted sources and expanding

outreach through community and digital platforms, Kawaala Health Centre IV can significantly enhance mothers' access to and utilization of child health information, thereby improving child health outcomes in the community.

5.4.2 The utilization of child health information in managing common childhood diseases

Based on the findings, it is recommended that health facilities strengthen and expand health education programs targeting mothers of under-five children. These programs should be regular, structured, and interactive, focusing on practical skills for disease prevention and management, such as hygiene practices, proper nutrition, timely immunization, and recognition of danger signs. Demonstrations, role-play, and hands-on learning can enhance mothers' understanding and encourage the practical application of health information in daily childcare.

Improving accessibility of child health information is also crucial. Mothers should be reached through multiple channels, including community outreach, radio programs, mobile phone messages, and peer support networks. Ensuring that information is delivered in local languages and in culturally appropriate ways will help mothers understand and apply health messages effectively, particularly for those with low literacy levels.

Community support networks, such as mother-to-mother groups and peer learning fora, should be strengthened to provide ongoing guidance and reinforcement of health practices. These networks allow mothers to share experiences, clarify doubts, and support one another in applying knowledge, which promotes consistent and effective management of common childhood illnesses.

Regular follow-up and monitoring by health workers is recommended to ensure that mothers are correctly applying the health information they receive. Home visits, check-ins, and supportive supervision provide opportunities to clarify misconceptions, reinforce key practices, and encourage timely care-seeking when illnesses arise, thereby improving child health outcomes.

Finally, continuous capacity building for health workers is essential. Training and mentorship programs should equip health workers with up-to-date knowledge, effective communication strategies, and practical teaching methods. Competent and confident health workers can better support mothers in applying child health information, bridging the gap between knowledge and practice, and ultimately enhancing the prevention and management of common childhood diseases.

5.4.3 The role of health workers and health education programs in facilitating child health information dissemination.

It is recommended that health facilities continue to prioritize and strengthen the role of health workers in disseminating child health information, as they are trusted sources and key intermediaries between the health system and the community. Health workers should be supported to deliver information in a clear, culturally sensitive, and interactive manner, using local languages, visual aids, and participatory methods such as demonstrations, group discussions, and role-play. This approach will enhance mothers' understanding, retention, and practical application of health messages.

Health education programs should be expanded and structured to reach a wider audience of mothers, particularly those who have limited access to health facilities. Regular community outreach sessions, health talks during clinic visits, radio programs, and mobile-based messaging platforms can be integrated to reinforce health messages across multiple channels. Consistency in messaging and alignment with national child health guidelines is critical to ensure that mothers receive accurate and actionable information.

Capacity building and continuous training of health workers should be maintained as a priority. By equipping health workers with updated knowledge, communication skills, and practical teaching techniques, they can effectively engage mothers, clarify misconceptions, and foster behavior change. Furthermore, establishing peer support networks, such as mother-to-mother groups facilitated by trained health workers, can reinforce learning, encourage community participation, and ensure that health education extends beyond the clinical setting.

In addition, monitoring and evaluation mechanisms should be incorporated to assess the effectiveness of health education programs. Feedback from mothers can be used to adapt content, delivery methods, and timing, ensuring that health information is accessible, understandable, and relevant to the community's needs. Through these combined strategies, health workers and health education programs can significantly enhance the dissemination and utilization of child health information, ultimately improving child health outcomes and reducing preventable illnesses.

5.4.4 Challenges affecting access and utilization of child health information by mothers of under-five children

Based on the findings, several strategies can be recommended to address the barriers that limit mothers' access to and use of child health information. First, health facilities and policymakers should strengthen community outreach programs to reduce geographic and transportation-related barriers. Mobile clinics, regular community health education sessions, and home visits by community health workers can bring information closer to mothers who cannot frequently visit health centers.

Second, health communication should be made more accessible by using local languages, visual aids, and simplified messaging. Translating written materials and delivering health talks in languages widely spoken by mothers, such as Luganda in Kampala, ensures better comprehension and practical application of child health information, especially for mothers with low literacy levels.

Third, socio-cultural influences should be addressed through culturally sensitive education and engagement. Health workers should involve local leaders, elders, and influential community members in awareness campaigns to promote trust and acceptance of recommended practices, while dispelling myths and misconceptions about child health, nutrition, and immunization.

Economic barriers can be mitigated by integrating health information dissemination with support programs. For instance, combining health education with income-generating initiatives

or providing low-cost communication tools (like radios or mobile phone access) can improve mothers' ability to receive and act on health messages.

Improving the communication skills and capacity of health workers is also crucial. Regular training, refresher courses, and mentorship programs equip health workers to deliver clear, accurate, and culturally appropriate health information, while also enhancing their ability to provide individualized guidance and follow-up.

To address weak community engagement and follow-up, mother-to-mother support groups and peer learning networks should be strengthened. These platforms allow mothers to share experiences, reinforce learning, and maintain adherence to health recommendations, fostering a supportive environment for behavior change.

Finally, misinformation should be actively countered by promoting reliable and consistent health messages through multiple channels, including radio, mobile platforms, and community forums. Collaboration with media outlets, local leaders, and community health teams ensures that mothers receive trustworthy information that they can confidently apply in managing common childhood diseases.

Addressing the barriers to accessing and utilizing child health information requires a multi-faceted approach that combines community outreach, culturally appropriate communication, economic support, health worker capacity building, peer engagement, and consistent messaging. Implementing these strategies can significantly improve mothers' knowledge, decision-making, and practices, ultimately enhancing child health outcomes in the community.

5.4.5 Strategies to improve access and utilization of child health information for disease management among mothers of under-five children

Based on the study findings and the researcher's own insights, the following strategies are proposed to enhance access to and utilization of child health information for effective disease management among mothers of under-five children at Kawaala Health Centre IV.

1. Strengthen Community-Based Health Education Programs

Kawaala Health Centre IV, through its Community Health Department, should collaborate closely with Village Health Teams (VHTs), local leaders, and Non-Governmental Organizations (NGOs) to expand and strengthen community-based health education programs. Health workers should coordinate regular outreach sessions, practical demonstrations, and household visits focusing on common childhood diseases, nutrition, immunization, and hygiene. VHTs and local leaders should be empowered to mobilize mothers and ensure active community participation. Partnerships with NGOs could also help provide educational materials, logistical support, and incentives to sustain engagement.

2. Use Culturally Appropriate and Accessible Communication Methods

Health Education Officers and other health workers at Kawaala Health Centre IV should collaborate with local language experts, NGOs, and media partners to develop and disseminate child health information that is culturally sensitive, easy to understand, and accessible to all mothers. This includes translating key messages into local languages, using visual aids, storytelling, and interactive demonstrations. Local radio programs, community drama groups, and mobile phone platforms can also be leveraged to broaden reach and reinforce consistent messaging.

3. Enhance Capacity Building and Continuous Training for Health Workers

The Ministry of Health, in collaboration with the Kampala District Health Office, should support Kawaala Health Centre IV in implementing regular refresher courses, mentorship programs, and workshops for health workers. These initiatives should focus on improving communication skills, data use for decision-making, and updated guidelines on child health and disease management. Continuous professional development will enhance the competence, motivation, and confidence of health workers, thereby improving the quality of health information shared with mothers.

4. Strengthen Community Engagement and Peer Support Networks

The Community Health Department at Kawaala Health Centre IV should promote the establishment of peer learning groups and mother-to-mother support networks. These platforms can provide safe spaces for mothers to share experiences, discuss challenges, and learn practical solutions for child health care. Health workers and VHTs should facilitate regular meetings, home visits, and follow-ups to ensure sustained engagement. Local leaders can further support these networks by integrating child health discussions into community gatherings and local council meetings.

5.5 Areas for further study

This study focused on access and utilization of health information for disease management among mothers of children under five years at Kawaala Health Centre IV. Although it provided valuable insights, several areas remain open for further investigation. Future studies could examine:

- i. The impact of health information utilization on child health outcomes, particularly in reducing the prevalence of common childhood diseases such as malaria, diarrhea, and respiratory infections. Such research would help quantify the benefits of effective information use.
- ii. The role of health workers' competence, communication skills, and motivation in influencing how mothers understand and apply child health information in managing diseases at the household level.
- iii. The socio-economic and cultural determinants that shape mothers' access to and utilization of health information. Understanding these contextual factors would support more inclusive and culturally sensitive health education strategies.
- iv. Assessing the effectiveness of existing community health education programs and outreach initiatives in promoting awareness, behavioral change, and proper disease management practices among caregivers of under-five children.

- v. Investigating the use of digital and mobile health (mHealth) technologies as emerging tools for improving the accessibility, timeliness, and reliability of child health information, especially in urban and peri-urban settings like Kampala.

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APPENDICES

Appendix 1: Focus Group Discussion Guide for Mothers

Consent Form

My name is Harriet Atim from Makerere University. I am here to conduct research on **Access and Utilization of Health information for Disease Management among Mothers of Children Under five**. You have been selected to participate in this study. The information gathered here will remain confidential and I will not write down your names.

Signature of respondent verifying that informed consent has been verbally given by the participant.

Date: _____/_____/_____

Section A

Socio-Demographic Characteristics of Mothers			
002	Age	Age in complete years	
003			
004	What is your marital status?	Single Married Widowed Divorced/separated Living together/cohabiting No response	1 2 3 4 5 6
005	What is your highest level of education?	No education Primary education Secondary education Post secondary education Vocational education	1 2 3 4 5
006	What is your occupation?	Trader Salaried	1 2

Casual worker	3
Retired	4
Domestic worker	5
Unemployed	6
Student	7
Others	8

Section B

007. What are your health information needs as mothers?

008. Do you utilize the information that is disseminated?

a) Yes b) No

If No, give reasons for your answer

009. How do you mother's access health information in Kawaala Health Centre IV?

.....
.....

010. Why do you think this information is important to you?

.....
.....

011. What do you think hinders you mothers from accessing this child's health information?

.....
.....

012. What do you think should be done to ensure effective child health information dissemination to mothers of children under five years.

Thank you very much for your time

Appendix II

Key Informant Interview Guide

Access and Utilization of Health information for Disease Management among Mothers of Children Under five at Kawaala Health Centre IV

Introduction

Interviewer introduces herself and explains the purpose of the meeting, the expected duration of the interview, and seeks verbal consent to participate before the beginning of the interview.

Background Information

Date of interview:

Please tell me about the following:

- Names and designation
- Gender (sex) female/male
- Division and zone
- Date of interview

1. What are the information needs of mothers of under- fives at Kawaala Health Centre IV ?

.....
.....
.....

2. Is the information disseminated utilized by mothers or not (give reasons for your answer?)

.....
.....
.....

3. How does KHC IV disseminate health information to the under-five mothers?

.....
.....
.....

4. Why is it important for KCH IV to disseminate child health information to the mother?

.....
.....

5. What do you think hinders mother from accessing this information?

.....
.....
.....

6. What challenges does KHC IV face when disseminating this information to the mothers?

.....
.....
.....

7. What solutions have been put in place to overcome the challenges?

.....
.....
.....

8. What are the factors to be considered when disseminating child health information to the mothers of under-fives?

.....
.....
.....

9. How can KCCA help KHC IV in disseminating child health information to under-five mothers?

.....
.....
.....

10. How can child health care delivery be improved in KHC IV?

.....
.....
.....

11. What are the roles of health workers and health education in disseminating health information to the mothers of the under five children.....

Thank You Very Much for Your Time

Appendix III
Observation Schedule

No.	Phenomena observed	Remarks
1.	Appearance of patients: of mothers and children under five years	
2.	Ways of health information dissemination – e.g. posters on walls, t-shirts, leaflets, etc	
3.	Services offered to the clients: treatment, immunization, counseling, etc	
4.	Health training for the clients: hygiene, nutrition, first aid, etc	
5.	Information on prevention of diseases like cancer, hepatitis, polio, measles, etc E.g. on charts and posters	
6.	Interpersonal/social information: on family size, caregivers, social life etc	
7.	Information of sexuality and STDs and HIV AIDs	

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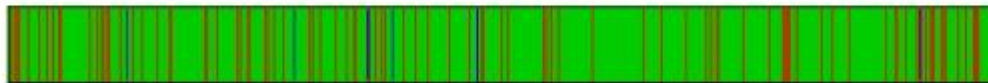
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